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ABSTRACT

Rules in tennis, badminton, and squash for girls and women from June 1972 - June 1974 are discussed. Standards in the sports are detailed along with the Division for Girls and Women's Sports (DGWS) statement of beliefs. Specific articles dealing with teaching techniques, officiating techniques, and rules for tennis and badminton are presented. Introductory information on squash is included along with the United States Squash Racquets Association's singles rules. Bibliographies and lists of visual aids are presented for tennis and badminton. (BRB)

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Tennis-Badminton- Squash **GUIDE**

JUNE 1972 - JUNE 1974

With Official Rules

Editors

Martha Knight, *Tennis*

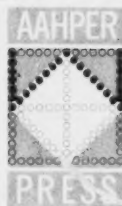
Colleen O'Connor, *Badminton*

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THE DIVISION FOR GIRLS AND WOMEN'S SPORTS

American Association for Health, Physical Education, and Recreation

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DIVISION FOR GIRLS AND WOMEN'S SPORTS

The Division for Girls and Women's Sports is a nonprofit educational organization designed to serve the needs and interests of administrators, teachers, leaders, and participants in sports programs for girls and women. It is one of eight divisions of the American Association for Health, Physical Education and Recreation. Active members of the Division are women members of the American Association for Health, Physical Education, and Recreation who are interested in sports for girls and women and who participate in the work of the Division. These women are professional leaders in schools, colleges, community centers, industrial plants, military services, public and private clubs, and agencies.

The purpose of the Division for Girls and Women's Sports is to foster the development of sports programs for the enrichment of the life of the participant.

The Division for Girls and Women's Sports attempts to promote desirable sports programs through:

1. Formulating and publicizing guiding principles and standards for the administrator, leader, official and player.
2. Publishing and interpreting rules governing sports for girls and women.
3. Providing the means for training, evaluating, and rating of officials.
4. Disseminating information on the conduct of girls and women's sports.
5. Stimulating, evaluating and disseminating research in the field of girls and women's sports.
6. Organizing various units of AAHPER concerned primarily with girls and women's sports in order to exert effective leadership.
7. Sharing in the interests of other AAHPER divisions and/or sections in promoting sports programs.
8. Cooperating with allied groups interested in girls and women's sports in order to formulate policies and rules that affect the conduct of women's sports.

SPORTS GUIDES AND OFFICIAL RULES COMMITTEE INTEREST INDICATOR

The SGOR Committee is endeavoring to broaden its base of personnel and to strengthen its services to *Guide* readers. The purpose of this form is to offer readers an opportunity to join us in meeting this need. Please complete this form and send it to the SGOR Associate Chairman-elect, whose name and address appear on page 16.

Name _____

Professional Address _____

City _____ State _____ Zip Code _____

1. Check the Sport Committee(s) which would be of interest to you:

☐ Aquatics	☐ Flag football	☐ Speedball
☐ Archery	☐ Golf	☐ Squash
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☐ Field Hockey	☐ Softball	

2. Would you like to serve as a member of a Sports Guide Committee of your interest? * ☐ Yes ☐ No
3. Would you consider submitting an article to a Guide Committee as a prospective author? ☐ Yes ☐ No
Possible topic or title _____
4. Can you suggest topics for articles which you would like to have included in future *Guides*? (Please indicate sport.)

5. Are there others whom you would recommend for consideration as possible committee members or authors? Please indicate below. (Use additional paper, if necessary.)

Name _____ Sport(s) _____

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*You may serve on only one Sport Guide Committee at a time.

DGWS STATEMENT OF BELIEFS

We believe that opportunities for instruction and participation in sports should be included in the educational experiences of every girl. Sports are an integral part of the culture in which we live. Sports skills and sports participation are valuable social and recreational tools which may be used to enrich the lives of women in our society.

We believe that sports opportunities at all levels of skill should be available to girls and women who wish to take advantage of these experiences. Competition and cooperation may be demonstrated in all sports programs although the type and intensity of the competition will vary with the degree or level of skill of the participants. An understanding of the relationship between competition and cooperation and of how to utilize both within the accepted framework of our society is one of the desirable outcomes of sports participation.

We believe in the importance of physical activity in the maintenance of the general health of the participant.

We believe that participation in sports contributes to the development of self-confidence and to the establishment of desirable interpersonal relations.

For these reasons, *we believe* that girls and women of all ages should be provided with comprehensive school and community programs of sports and recreation. In addition, they should be strongly and actively encouraged to take part in such programs.

PROGRAM

We believe that sports programs for girls and women should be broad, varied, and planned for participants at differing levels of skill. There should be full awareness of the wide span of individual differences so that all types, ages, and skill levels are considered in the planning of sports programs. In conducting the various phases of sports programs, principles must guide action. These principles should be based on the latest and soundest knowledge regarding

1. Growth and development factors
2. Motor learning
3. Social and individual maturation and adjustment
4. The values of sports participation as recognized in our culture.

Elementary Schools (grades 1-6)

We believe in planned, comprehensive, and balanced programs of physical education for every girl in the elementary program. These should provide experiences in basic movements—for example, skip-

ping and simple dance steps, bending, reaching, and climbing—and in a wide variety of activities which require basic sport skills such as catching, throwing, batting, and kicking.

We believe that intramural sports experiences in appropriately modified sports activities should supplement an instructional program for girls in grades 4, 5, and 6, and that in most cases these experiences will be sufficiently stimulating and competitive for the highly skilled girl. We believe extramural sports activities, if included in the upper elementary grades, should be limited to occasional play days (sports groups or teams composed of representatives from several schools or units), sports days, and invitational events.

Secondary Schools (grades 7-12)

We believe that in secondary schools a program of intramural and extramural participation should be arranged to augment a sound and comprehensive instructional program in physical education for all girls. Extramural programs should not be organized until there are broad instructional and intramural programs and a sufficient allotment of time, facilities, and personnel for new programs.

Colleges and Universities

We believe that college and university instructional programs should go beyond those activities usually included in the high school program. There should be opportunities to explore and develop skills in a variety of activities, with emphasis on individual sports. It is desirable that opportunities for extramural experiences beyond the intramural program be accessible to the highly skilled young women who wish these opportunities.

Forms of Competition

Intramural competition is sports competition in which all participants are identified with the same school, community center, club, organization, institution, or industry, or are residents of a designated small neighborhood or community.

Extramural competition is a plan of sports competition in which participants from two or more schools, community centers, clubs, organizations, institutions, industries, or neighborhoods compete. The forms of extramural competition include

1. Sports days—school or sports group participates as a unit
2. Telegraphic meets—results are compared by wire or mail
3. Invitational events—symposiums, games, or matches to which a school or sports group invites one or more teams or individuals to participate.
4. Interscholastic, intercollegiate, or interagency programs—groups which are trained and coached play a series of scheduled games

and/or tournaments with like teams from other schools, cities, or organizations.

International Competition involves players from different nations and provides sports experiences for individuals or groups with exceptional ability and emotional maturity. This type of competition under some conditions could include secondary school girls, but usually it is planned for more mature participants.

Corecreational activities are designed to give boys and girls opportunities to participate on the same team against a team of like composition, provided the activities do not involve body contact. The basis for formation of teams should be to promote good team play. We believe that girls should be prohibited from participating (1) on a boys intercollegiate or interscholastic team; (2) against a boys intercollegiate or interscholastic team; and (3) against a boy in a scheduled intercollegiate or interscholastic contest.

ADMINISTRATION

We believe that certain *safeguards* should be provided to protect the health and well-being of participants. Adequate health and insurance protection should be secured by the institution. First aid services and emergency medical care should be available during all scheduled interscholastic sports events. Qualified professional leaders should ensure a proper period for conditioning of players, a safe environment including equipment and facilities, a schedule with a limited number of games, and similar measures.

We believe that sports *officiating* should be the responsibility of those who know and use DGWS approved rules. Officials should hold current ratings in those sports in which ratings are given.

We believe that the entire *financing* of girls and women's sports programs should be included in the total school budget. It is suggested that income be handled as a regular school income item.

We believe that the *scheduling* of sports activities for girls and women should be in accordance with their needs and that their schedule should not be required to conform to a league schedule established for boys and men's sports.

We believe that excellence of achievement should be given *recognition* and that the intrinsic values which accrue from the pursuit of excellence are of primary importance. We believe that, when awards are given, they should be inexpensive tokens of a symbolic type, such as ribbons, letters, and small pins.

We believe that expert teaching and quality programs generate their own best *public relations*. It is suggested that an effective plan be developed for interpreting the values of the sports program to parents, teachers in other fields, and interested members of the

school or college community, including the press. A procedure which has proved successful is to invite key groups to a selection of demonstrations and sports events at different levels, so that they may see effective programs in action.

LEADERSHIP

We believe that good leadership is essential to the desirable conduct of the sports program. The qualified leader meets the standards set by the profession, including an understanding of (1) the place and purpose of sports in education, (2) the growth and development of children and youth, (3) the effects of exercise on the human organism, (4) first aid and accident prevention, (5) understanding of specific skills, and (6) sound teaching methods. Personal experience in organized extramural competition is desirable for the young woman planning to become a leader or teacher of women's sports. The leader should demonstrate personal integrity and a primary concern for the welfare of the participant.

POLICY-MAKING

And finally, we believe that all leaders, teachers, and coaches of girls and women's sports should be encouraged to take an active part in the policy decisions which affect planning, organizing, and conducting sports programs for girls and women. Leaders should make sure that qualified women are appointed to the governing sports bodies at all levels—local, state, national, and international—to ensure that programs are in the best interest of those who participate.

STANDARDS IN SPORTS FOR GIRLS AND WOMEN

Standards in sports activities for girls and women should be based upon the following:

1. Sports activities for girls and women should be taught, coached, and officiated by qualified women whenever and wherever possible.
2. Programs should provide every girl with a wide variety of activities.
3. The results of competition should be judged in terms of *benefits to the participants* rather than by the winning of championships or the athletic or commercial advantage to schools or organizations.

Health and Safety Standards for Players

Careful supervision of the health of all players must be provided by

1. An examination by a qualified physician
2. Written permission by a qualified physician after serious illness or injury
3. Removal of players when they are injured or overfatigued or show signs of emotional instability
4. A healthful, safe, and sanitary environment for sports activity
5. Limitations of competition to a geographical area which will permit players to return at reasonable hours; provision of safe transportation.

General Policies

1. Select the members of all teams so that they play against those of approximately the same ability and maturity.
2. Arrange the schedule of games and practices so as not to place demands on the team or player which would jeopardize the educational objectives of the comprehensive sports program.
3. Discourage any girl from practicing with, or playing with, a team for more than one group while competing in that sport during the same sport season.
4. Promote social events in connection with all forms of competition.

SOURCES OF INFORMATION AND SERVICE

The various services are offered by committees. All requests for information of services should be addressed to the chairman of the committee into whose field of work the inquiry falls. Inquiries which cannot be readily classified should be addressed to the DGWS vice-president.

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DIVISION HISTORIAN—Maintains file of historical records and publications which are available on loan.

Historian: HAZEL PETERSON, Univ. of Idaho, Moscow 83483

LIAISON—Maintains relationships with allied national sports organizations.

Chairman: MILDRED BARNES, Central Missouri State College, Warrensburg 64093

NATIONAL INTRAMURAL SPORTS COUNCIL—A joint council of DGWS and DMA to provide leadership to initiate and to improve intramural programs at all educational levels.

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OFFICIATING SERVICES AREA—Tests and rates women officials; directs policies of local boards.

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Tennis Courtesy

LUELL WEED GUTHRIE
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A recent graduate of the University of California, Berkeley, with a major in math and minor in physical education, Linda Elliott is a teaching intern at Moreau High School, Hayward, California. She will be an official AAU hostess for the United States Olympic teams in Munich the summer of 1972.

The following suggestions are for use in school and college tennis classes:

It is important to know the official rules of tennis and then play by the Official USLTA Tournament Rules and Regulations.

Courtesy should be extended to your opponent(s) as well as to your partner in doubles and to officials.

During a match with an umpire, abide by the decision of the umpire graciously and without comment. If you were uncertain of any calls or decisions, ask for an interpretation *after* the match. Be sure to thank the umpire and linesmen for officiating.

When there is no umpire, the players must conduct the match in accordance with USLTA Rules, which means that each player must take on the duties of a linesman and scorekeeper.

When you are your own linesman, your obligations include calling all balls on your side of the net. Help your opponent with a decision only if requested. Any ball that you clearly see out on the opponent's side, you must call against yourself, whether she has asked your opinion or not. (An exception is the serve in doubles when it becomes the receiver's partner's responsibility to help call the boundary lines of the service court).

As server you should keep the score accurately and verbally *after each point*.

When starting a match, introduce yourself to your opponent if you do not know her.

Offer to spin your racket to determine (1) the right to be server or receiver; or (2) the chooser of the side. The winner of the spin has the right to choose one of these two options.

Always, but especially when beginning a game, wait until it is obvious that your opponent is ready to receive the first serve. A "quick serve" may result in your opponent asking for a "let." However, if she returns or tries to return the ball, she cannot then claim that she was not ready (Rule 11).

The footfault is one violation that cannot be called in the absence of a linesman or umpire (Rule 7). The person who footfaults is taking advantage of her opponent. The fairminded person will break herself of a habitual footfault in practice by asking others to observe her serve. The person who footfaults knowingly is cheating and is careless and unfair.

Once a ball is returned, the opponent may assume that the ball is good. Therefore, to return a serve that is obviously out is unnecessary, unless the return cannot be avoided, in which case "out" should be called immediately.

Calls of "out" and "let" should be made instantly, as a delay or doubtful call implies that it was not seen clearly. A ball that you cannot call "out" is presumed good. In any event, do not claim "let" because you did not see the ball. Any doubts must be resolved in favor of your opponent.

Do not question opponent's call unless asked. Ask your opponent's opinion when she is in a better position to see the ball than you. Do not enlist the aid of a spectator. You may think the spectator is qualified, but your opponent may not.

Distracting your opponent by intentionally waving your racket or your arms, or making noise is not courteous.

Your opponent is entitled to a replay if exclamations are made during the course of play. However, she must ask for a replay immediately, not later, after she has lost the point.

You must volunteer honestly against yourself such violations as double-hit, double-bounce, ball touching your body or clothing, touching the net, and reaching over the net (Rule 18).

Courtesy in Doubles Play

The receiver's partner should call the service line, and the receiver together with her partner should call the center and sidelines of the service court.

If one partner calls the ball good and the other calls it out, the point goes to the opponents. As doubt has been raised, it is not up to the two partners to come to an agreement.

In the course of the play, there should be no conversation between partners except brief and simple instructions, such as "mine," "out," "run," etc.

Bolster the morale of your doubles partner by a kind word if successive errors are made. Smile! Do not glare at your partner. Cooperate with her as she wants to win as much as you do.

Court Courtesy

When matches are being played on adjoining courts, extend the same courtesies to your neighbors that you would want for yourself. Do not retrieve your ball from or behind the adjoining courts while play is in progress. Do not ask for your ball or return a ball to adjoining courts while play is in progress. Return a wandering ball to the server of the match each time. The server should say "thank you" for return of ball to her.

When waiting for a court, let it be known that you would like to play next after the players' set is finished. Then remain on the sidelines until the players are finished without distracting them.

At the end of the set, be sure to give up your court to those waiting or if there is a time regulation, vacate your court immediately when the time period is up.

Tournament Courtesy

Know the USLTA Tennis Playing Rules thoroughly.

Dress according to the club's or playing center's rules.

Use a tennis racket guard on metal rackets to prevent scraping court surfaces.

Be punctual for play. Otherwise you may be defaulted or called for stalling.

The rules on *stalling* are concerned with: (See Rule 30 for explanation.)

- excessive time being taken in arriving at the match to be played

- excessive warm-up, more than five minutes or time posted at desk

- moving at abnormally slow speed between points

- excessive time in "toweling" between games (limit one minute)

- extra time at the end of the first set that ends on even games

- server waiting at the net while receiver retrieves ball

- unnecessary discussion to catch breath

- delay in clearing balls from the court between serves

- stopping to tidy hair, tie shoes, etc., when obviously stalling for time.

Take all practice serves before match officially starts and this means all four players in doubles. Play must be continuous from start of first serve (Rule 30).

Players may not accept coaching during the progress of the match. At no time should they consult parents, friends, coach, or spectators.

If it is necessary for a player to request quiet of an audience, it should be done in a courteous manner and through an umpire. If no umpire or referee is present, players should wait until they change sides of the net and enlist the aid of opponent(s) in quietly and politely requesting more peace and quiet.

Spectator Courtesy

Accept the umpire's decision during an officiated match. Accept players' decisions, if no umpire. Do not become an unofficial umpire.

Spectators must show consideration for the players by avoiding distracting movement and loud conversation while a point is in progress. Do not ask for the score until score is determined after a point.

Do not move around, change seats, rattle paper, leave the court area or wave at other spectators during a point.

Do not enter the court or walk across or behind a court until a game is completed.

Do not leave court area or change seats during play; wait until players are changing sides of the court.

All spectators, including parents, friends, or coaches, should be courteous also. This means no volunteering advice on line calls, scoring, or the conduct of the match, while play is in progress. Comments may only be made during the official rest period that is allowed between second and third sets (only after third set for men).

Be courteous at all times, whether you win or lose and you will be sought after as a social opponent, partner, or entrant in tournaments. Gracious participation is the basis for good tennis games.

Doubles Positioning for Beginners

ANN READ

Ann Read received her B.A. and M.A. degrees from Chapman College, Orange, California. She teaches and coaches tennis at Fullerton Junior College in Fullerton, California. She was the 1971-1972 tennis chairman for the Southern California Community Colleges.

Because of the obvious differences in court size, number of players, positioning and strategy, the doubles game is quite different from singles.

Although singles play obviously provides more opportunities for a beginner to practice basic strokes, there are definite advantages for gaining experience in doubles play. The game of doubles not only places a premium on a good first serve but it also gives the student a chance to practice the volley in a game situation which could lead to a more aggressive singles game. Often a weaker or slower player will be a better doubles player than singles player because of good strategy and positioning which can compensate for the absence of great skill.

Individual Positioning and Play

A doubles team can function most effectively if each player places herself in the most advantageous position from which she can efficiently cover her portion of the court.

Server

Serving position. The server should serve from a spot within a few feet of the bisection of the singles side boundary and the baseline (Figure 1). From this position she will have best return coverage for her section of the court. Serving from nearer the side boundary also lessens the chance of hitting her partner at the net with her serve. More important to the beginning player, however, is that serving from this position makes the service court wider in the center and thereby easier to serve to than the longer narrower court for a serve from the center mark (Figure 2).

Importance of the serve. In doubles it is vital that the first serve be "in." A successful first serve gives the server a psychological advantage by taking the pressure off the server and putting it onto the receiver. In addition, not only do service faults lead to lost games

Key: S – Server
 SP – Server's Partner
 R – Receiver
 RP – Receiver's Partner

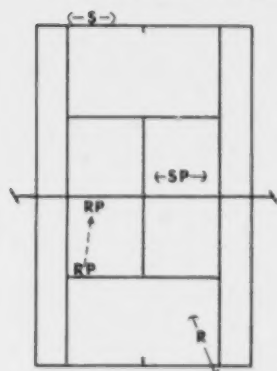
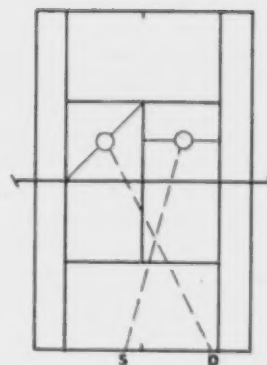


Figure 1. Court positions



S – Singles
 D – Doubles

Figure 2. Wider angle of serve

but frequent double faults also have a tendency to break the concentration of all four players on the court.

Depth of serve is equally important because the majority of the outright winning shots in doubles are made from the net position; therefore, the receiver should be forced deep into the backcourt to make the service return. A serve with depth makes it more difficult for the receiver to come to the net as contrasted with the ease of coming to the net off a shallow serve.

Reducing double faults. When a player faults a serve, she should be encouraged to break the ineffective movement pattern by bouncing a ball between serves and mentally going over the correct movement pattern.

Partner of the Server

Position at net. The partner of the server stands six to nine feet from the net (Figure 1). Any player who is a poor volleyer should stand closer to the net, being sure to assume a good ready position. She should align herself opposite the receiver and maintain this alignment with the receiver as she moves from side to side within her half of the court (Figure 3). This should maximize her chances of intercepting the service return.

Receiver

Receiving position. The receiver should align herself opposite the server by sighting along an imaginary line from the center of the service court to the server (Figure 4). She must be ready to adjust her distance in relation to the service line according to the depth of the serve. If the receiver watches the server's initial warm-up serves, she can anticipate the depth of the serve and position herself accordingly.

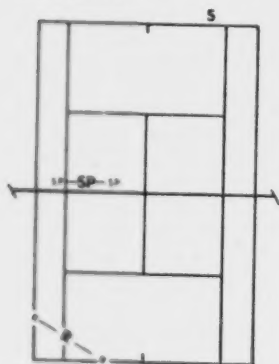


Figure 3. Moving with receiver

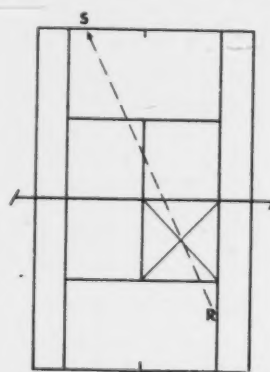


Figure 4. Receiver lining up with server

Service returns. There are many possible service returns; however a cross-court drive or lob seem to work best for the beginner. A cross-court drive is the easiest service return and also the most frequent used, accounting for 93% of all returns.¹ Since the net is lower in the center, this type of return is more likely to be successful.

When returning a serve from the forehand court, more advanced players should try to lob over the net player (Figure 5). A lob from this position forces a right-handed player into a high backhand stroke return.

Partner of the Receiver

Court position. The partner of the receiver should stand on the service line midway between the center line and the singles side boundary (Figure 1). From this position she can help her partner by calling any long serve faults. It is the receiver's responsibility to call any wide service faults as she has a better view of the two side boundary lines of the service court.

This position allows the receiver's partner to adjust to the receiver's movement on the service return. Following a cross-court return away from the net player, the receiver's partner should move to the net and assume a position opposite her opponent. However, if the receiver returns the ball toward the net player, she must stay on the service line to cover a possible cross-court volley.

Teamwork

With two people covering a court only one-third larger than that normally covered by one player, the essence of doubles strategy is the two players working together to attain an offensive court position. There are three types of doubles coverage from which to gain this advantage: up and back, side by side, and a combination of the two.

Up and Back

The up and back team position is normally assumed by both teams before every serve is delivered (Figure 6). Each player is responsible for a triangular-shaped section of the court which changes according to the opponent's play. If an opponent lobs over the "up" player, the "back" player just moves to the opposite corner of the baseline to play the lob while the "up" player moves to the opposite side of the court, changing sections.

Advantages and disadvantages. This is the easiest type of doubles teamwork for the beginner as it requires less changing of positions by both players. However, since most of the outright winning points in doubles are made from within the forecourt, having only one member of the team in an "up" position is weak offensively.

Side by Side

Side by side positioning is just what its names implies: two players cover the court parallel to each other, as if connected by a string (Figure 6). When one player moves forward or goes back, her partner adjusts accordingly.

Advantages and disadvantages. More offensive than up and back, side by side teamwork allows both players to be in the forecourt at the same time. However, the type of court coverage is more difficult because it necessitates more movement and also requires that both players volley, serve, and rush the net well. It can become defensive if the opponents have strong lobs to force the team to retreat to the baseline.

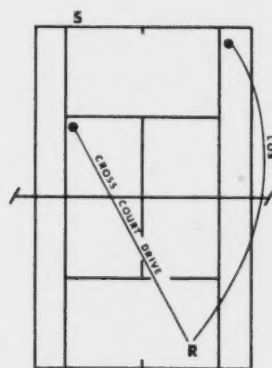


Figure 1. Serve returns

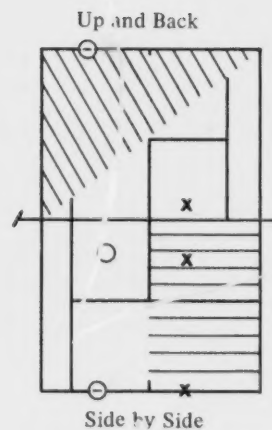


Figure 6. Doubles teamwork

Combination

Most players begin with up and back positioning on the serve and try to work toward a side by side position. This "combination" type of teamwork utilizes the best aspects of the other two: the initial up and back positioning is held until an offensive volley or deep approach shot gives the "back" player an opportunity to come up to the net to the "side" of her partner.

Conclusion

The game of doubles in tennis can be a very enjoyable as well as rewarding experience as good positioning can enhance the effectiveness of each player's strokes resulting in increased appreciation for the game itself.

¹William Talbert and Bruce Olds, *The Game of Doubles in Tennis* (Philadelphia: J.B. Lippincott Co., 1962), p. 67.

Task Method of Teaching Tennis

ELIZABETH PETRAKIS

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Tennis "is a many-splendored thing." It is rhythmic motion, synchronized action, speed, accuracy, and exhilaration. But, to enjoy tennis, one must learn to play, and acquiring skill in tennis is not a simple matter. Since success stimulates effort, the teacher of tennis is searching constantly for teaching approaches that will reach the individuals in her classes. With this purpose in mind, the task method of teaching tennis is presented.

The teacher has a variety of approaches that may be used in teaching tennis. In all classes, there are limitations such as equipment, space, time, class size, and the skill of the students. The greatest challenges the teacher faces are gearing the class to meet all ability levels in skill and providing the opportunity for the development of skill. The teacher must decide what approach can best work in a given situation. An approach commonly used is the command method.

Command Method

In the command approach of teaching tennis, the teacher gives an explanation and then expects the students to mimic or respond in the correct movement pattern. The teacher stimulates the student by giving him an exact command. The initiative for the learning is given by the teacher who rigidly controls all the variables and standards of performance.

Task Method

Another approach for teaching tennis is called the task method. In the task method, the teacher may give the instruction and explain the tasks to be performed. The students are free to explore these tasks. The student is self-directed, thus allowing for individual differences and skill abilities. Once the task is accomplished, the student is presented additional tasks.

Tasks may be simple to complex, quantitative or qualitative, written or performed, but they should be governed by the objectives of the course. When tasks are being used, there are three approaches to class organization: (1) mass, (2) ability levels within a class, and (3) individual programming.

Mass Level. In the mass level, one task may be presented to a class at a time. For example, a task to develop eye-hand coordination is demonstrated by bouncing the ball from the racket into the air 50 times continuously without an error. The students must try to pass this task before moving onto the next one. However, the student has the option of moving on to the next task but must continue to try passing the previous task. This method was tried in the Waukesha, Wisconsin public schools. The students worked on four tasks, simple in nature. Since court space was limited, a testing wall was set up. The tasks were to develop the forehand drive, the backhand drive, continuous rally using forehand or backhand drives, and the service. The students practiced the skills until they could pass the test or the course ended. The sooner the tasks were passed, the sooner the students were placed in a game situation.

Skill Level. If the class has a range of abilities, the teacher may want to group the students according to skill levels. The teacher would then provide tasks for each group which would both meet their needs and challenge them. Eve F. Kraft (2) has developed a series of workbooks that may be used by the students. Unit I is for beginners and advanced beginners while Unit II is for intermediate and advanced players. These workbooks contain skill progressions, exercises, rules and terminology. Again the students are free to work at individual levels and progress at their own rate of speed. The United States Lawn Tennis Association (5) also has tests for beginners to advanced players which may be used for certification. If the student passes a level in tennis, a certification card may be given to him, which is similar to the Red Cross swimming program.

Individual Level. The third area in task organization is individual programming. The students are tested when they enter the class and are placed into the program at their specific level. Each student works on his own to achieve maximum skill. The learning is self-directed and without any formal instruction. At the present time the Nebraska public schools in Omaha are studying this type of learning, labeled the Phy-Pak, in several areas of physical education (6). The student has reading material and audiovisual aids to use for his instructions. The student practices the task and when he feels he has learned the task, he goes to one of his peers or a student assistant to see if he is doing the task correctly. One example of a task is to return four or five balls which are tossed to the student. He must return them using the forehand stroke and having the balls go over the net and land within the boundary of the court. If the peer okays

the task, the student then goes to the teacher for final approval. If the teacher does not pass the student, the student must try again. He then must read further, watch the films and practice. When one task is accomplished, he moves on to another. Written quizzes are given and the student must pass the test with a predetermined score, or he repeats the test. This continues through the entire course of tennis.

Task assignments may be used for evaluating and grading the students. The teacher is the main source of evaluation. She may have student assistants or paraprofessionals trained to assist her in the testing. Partners may be used if the tasks are simple in nature. Self-testing can be used if these tasks are not used for grading. Students decide when they have learned the task. There is a danger, however, that they may overrate their performance if grading is involved.

Disadvantages of Task Method

There are two drawbacks to the task method of teaching. First, one may find the student who lacks motivation or who shies away from the testing situation or feels that he is not ready to be tested. It is necessary for the teacher to reinforce the idea that the student may keep trying to pass the task without penalty. Each time the student attempts a task, the highest score achieved is recorded by the teacher.

The second disadvantage would be teacher boredom. After the instructional material has been presented, the teacher's main responsibility is testing the students. If this is done hour after hour, the teacher may reach a level of mental fatigue. Each day may become very routine and monotonous.

Advantages to Task Method

There are several advantages in the task method of teaching tennis. Each student knows exactly what he must accomplish. He works at his own rate of learning and tries to advance to the next achievement level. At the University of Nebraska-Lincoln, this method has been used in major and service tennis classes. The students commented that they enjoyed this method because they could see an improvement in their own skills and knew what would be expected as evaluation.

The Waukesha and Omaha public schools noted that there were fewer discipline problems. This was probably because the students were self-directed, which increased their motivation. The teaching was individualized so a beginner did not feel he was competing against an advanced student. The advanced student was motivated to improve his skills and was not bored with material he had already mastered.

In the use of this method, the teacher is free to circulate and give individual help. When the teacher is testing each student, immediate analysis and suggestions can be given. In the command method, a teacher may miss the student who needs the greatest assistance.

Each teacher is an individual as is each student in her class. The teacher's knowledge, ability and personality determine her success in teaching. Therefore, very few teachers use the same method of teaching tennis successfully. In examining the task method of teaching tennis, the class may be individualized for each student and the student may progress at his own rate of speed to acquire the skills and knowledges of tennis. Success in skill leads to participation and enjoyment of the game of tennis.

REFERENCES

1. CONROY, JOHN J. *The Tennis Workbook*. Unit 11 for Intermediate and Advanced Players. Englewood Cliffs, N.J. 07632: Scholastic Coach Book Service, Inc., 1969.
2. KRAFT, EVE F. *The Tennis Workbook*. Unit 1 for Beginners and Advanced Beginners. Englewood Cliffs, N.J. 07632: Scholastic Coach Book Service, Inc., 1969.
3. MARIANI, THOMAS J. *A Comparison of the Effectiveness of the Command Method and the Task Method of Teaching the Forehand and Backhand Tennis Strokes.* Research Quarterly 41:171-174; May 1970.
4. MOSSTON, MUSKA. *Teaching Physical Education from Command to Discovery*. Columbus, Ohio: Charles E. Merrill Publishing Co., 1966.
5. USLTA. USLTA Official Achievement Test and Certificates. The United States Law Tennis Association, 51 East 42nd Street, New York, N.Y. 10017.
6. SHRADER, ROBERT D. "Individualized Approach to Learning." *Journal of Health, Physical Education, Recreation* 42: 33-36; September 1971.

Observational Learning in Tennis

JOHN W. SANTROCK

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Recently I gave a tennis lesson to a physician's wife. Following the lesson, the husband remarked that he was surprised I had used mostly punishment rather than reward during the lesson, particularly since I was a psychologist. My immediate thought was, "If she had hit any balls even remotely correctly, perhaps I would have rewarded her!" However, his comment stayed with me. It reveals how even a tennis instructor trained in psychology can benefit from consciously being reminded of the principles of learning. For instance, the lady who was told she always was doing something wrong when she hit the tennis ball probably did not have pleasant thoughts about the lesson, and likely would have performed better if the instructor had emphasized the positive aspects of her game.

However, since tennis involves complex learning processes, the concept of reinforcement is inadequate and too simple to explain how an individual should be taught. Each person comes to a tennis lesson with unique perceptual-motor coordination and athletic experience. Taking this into account, the instructor can see how rapidly he can introduce new concepts, or how repeatedly he must state a basic principle, such as stepping forward with the left foot simultaneously with the swing of the racket on the forehand for a right-handed player. The poorly coordinated, inexperienced player will require hours of drills on such a concept, and still may never perfect the timing, whereas the well coordinated, experienced athlete may develop the synchronization of the step and swing in two or three minutes.

Transfer of Training. In terms of past athletic experiences helping an individual to play tennis, we are talking about positive transfer of training. There also are negative carryovers to tennis from some sports; these are labeled negative transfer of training. For instance, people who have played golf for many years and then take up tennis

usually shift their weight with the swing of the racket in a low arc past their feet with head dropped and then end the follow-through high on the forehand. Actually, the path of the racket should be more level, past the waist, with the racket head even with the wrist when it passes the waist.

Age of Learner. The developmental psychologist also would argue that the age of the person should be taken into account. The young child's attention span is considerably shorter than the adolescent's, and he cannot retain information as well. Furthermore, the young child's perceptual-motor coordination is not as refined as the adolescent's or young adult's, and also the child is not strong enough to follow through firmly on his ground strokes. Hence, it would be ridiculous to orate five or six basic principles of the forehand and then expect a seven-year-old to implement them. For young children, the instructor wisely would focus on one or at most two basic principles during a lesson, such as getting the racket back quickly on the forehand.

Playing Ability of Teacher. Some very knowledgeable people in tennis have commented that a good teacher does not have to be a good player. However, the teacher who is a good player has a distinct advantage over the instructor who is not. This is so because of the principles of observational learning. If the instructor tells his pupils to stroke the ball smoothly and flatly, then the students see the teacher's jerky chop shots, the instruction probably doesn't make much of an impact on the learner.

Observational Learning

Of all of the ways the person has available to him to become a tennis player, none serves him as efficiently as imitation or observational learning. A person probably will fail miserably if he only reads books on tennis and/or listens to lectures on tennis, then attempts to incorporate these concepts into his tennis game. On the other hand, he will have a vivid, accurate impression of how to hit the tennis ball accurately if he watches outstanding players or a competent professional instructor and scrutinizes such aspects of their game as: footwork, follow-throughs, how they punch the ball on the volley, how they hit the ball in front of their body, and where they toss the ball on the serve. I learned how to hit a twist serve with no instruction other than closely observing the mechanics of the swing, ball toss, wrist action, and body position of a player known to have a good twist serve. Of course, many laborious hours of practice were necessary to perfect the serve.

Since observational learning is so critical in learning to play tennis, the makeup of observational learning needs to be discussed. The following ideas are based on the comprehensive account of

observational learning by Bandura.¹ Observational learning consists of three basic components: attention, retention, and motor-reproduction processes.

Attention Processes. Simply exposing the tennis player to the modeled shot does not guarantee that the player will attend to the shot, perceive it correctly, or pick out the correct points. Attention to the modeled stimuli may be controlled by incentive conditions, observer characteristics, and properties of the cues themselves. Physical properties of the cues such as intensity, size, vividness, and novelty influence attention. Models who are purported experts and who have demonstrated competence will likely elicit more attention than models who have not. For instance, Rod Laver would command more attention at a tennis clinic than Sammy Slide. The affectivity of a model also influences the learning process. The warm, considerate instructor conveys a positive, anxiety-reduced climate for the learner, whereas the harsh, cold instructor will inhibit the learning process.

Observational learning can be augmented by the use of appropriate incentives. If a person is informed beforehand that he will be expected to reproduce the elements of the model's behavior and be rewarded for the number correctly reproduced, he probably will attend more closely than the person presented the same modeled events without any predisposition to observe and to learn them.

The rate, number, distribution, and complexity of modeling stimuli that observers are exposed to influence the acquisition of modeled responses. The observer's capacity to process information places limits on the number of modeling cues that can be learned during a single exposure. Repeated presentations may be necessary to develop adequate matching of the learner's responses to the model's.

Retention Processes. So far I have mentioned only factors involved in the sensory registration and coding of stimuli. Another basic component of observational learning involves the retention of modeled events. In order to reproduce the model's behavior in the model's absence, the learner must retain the original observational input in some type of symbolic form. Of the many variables which influence the learner's memory of the model's behavior, rehearsal probably is the most important. Through practice, or overt rehearsal of modeled behavior, the retention of such behavior is enhanced. Furthermore, periodic reproduction of modeled segments of behavior is better than lengthy, passive observation of behavior.

¹ Albert Bandura, *Principles of Behavior Modification*, (New York: Holt, Rinehart, and Winston, 1969).

Motor Reproduction Processes. The rate and level of observational learning is controlled extensively by the availability of motor responses. Observers who lack some of the necessary components will reproduce only part of the model's behavior. Modeled responses also may be acquired in representational form but cannot be reproduced because of physical limitation. No matter how closely the spectator watches Rod Laver's backhand overhead, he won't be able to reproduce it.

Furthermore, tennis is a highly coordinated motor skill in which the person cannot observe many of the responses he is making and must therefore rely upon proprioceptive feedback cues. Consequently, hours and hours of overt practice are necessary in addition to the guidance of a proficient model. Because proprioceptive feedback is so important in learning the relation of the ball to your body and the racket, the person should be urged to hit thousands of balls from one lesson to the next. New mistakes may occur in the swing as the person hits many balls without the instructor present, but the importance of learning the relation of the ball to the racket and body as it travels at different speeds and bounces to different heights far outweighs the new bad habits the learner might develop.

The learner's active, repetitive practice of the instructor's tips also is crucial because the person has to eventually learn how to hit a tennis ball without thinking. As the ball approaches, the player simply does not have time to think, "Racket back, arm relaxed, body sideways, racket head level, step, and follow-through." As he practices, the learner should think about one of these principles at a time and practice one at a time, then gradually blend them into his game to complete the perfection of a stroke. Of course, thinking of many principles of the mechanics of a stroke while the ball approaches can be harmful.

I have found that two practice swings on a stroke, then without stopping, a third swing as another person easily tosses or hits the ball do wonders for the person's learning. This is so because such a drill grooves the learner's muscles in a particular timing and path so that he doesn't have to think too much about the mechanics of the stroke when the ball approaches.

The Tennis Drive Skills Test¹

GERALYN J. SHEPARD

Geralyn Shepard, an instructor and tennis coach at Pasadena City College, received her master's degree from California State College, Los Angeles.

Purpose of the test. There are only a few skills tests designed to evaluate a subject's performance in hitting tennis drives from an approaching ball. Tests should be as nearly like the game situation as possible. The strokes or returns in a tennis game are made from an approaching ball. Therefore, the purpose of this test is to measure the ability of the performer to stroke a tossed ball low to the net and deep into the backcourt.

Description of the test. The test consists of 14 forehand trials and 14 backhand trials. Each subject is allowed 5 practice trials on both the forehand and backhand strokes.

Equipment needed:

1. A regulation net and tennis court with special court markings (Figure 1).
2. A restraining rope stretched four feet, four inches directly above and parallel to the net.
3. One racket and 14 new balls for each station.
4. A scorecard for each subject and pencils.

The Test. The student taking the test stands in back of the baseline directly behind the center mark in ready position. When the ball is tossed to the target circle, the hitter moves into position to drive the tossed ball over the net and deep into the opposite backcourt. The tosser stands in front of the net, directly opposite the target circle, and tosses the ball underhand in a fairly flat trajectory so that the first bounce of the ball is in the circle. The tosser must be certain that the hitter is in a good ready position before tossing the ball. The hitter should not swing at bad tosses or at any tosses that are made when she is not ready. If the hitter swings at a bad toss, that trial is counted.

¹ Geralyn J. Shepard, "The Shepard Modification of the Broer-Miller Tennis Drive Skills Test." Master's thesis, California State College at Los Angeles, June 1969.

EXPLANATION OF SYMBOLS:

⊗ POSITION OF THE RETRIEVERS

① POSITION OF THE RECORDER

--- DOTTED LINE REPRESENTS STRING, 4'4" ABOVE THE HEIGHT OF THE NET

× POSITION OF THE TOSSERS, JUST IN FRONT OF THE NET AND IN LINE WITH THE TARGET CIRCLES

② POSITION OF THE ROPE JUDGE

⊗ BACKHAND TARGET CIRCLE

○ FOREHAND TARGET CIRCLE
BOTH CIRCLES 22" IN DIAMETER

▲ POSITION OF SUBJECT TAKING THE TEST
JUST BEHIND THE BASELINE
ASTRIDE THE CENTER MARK

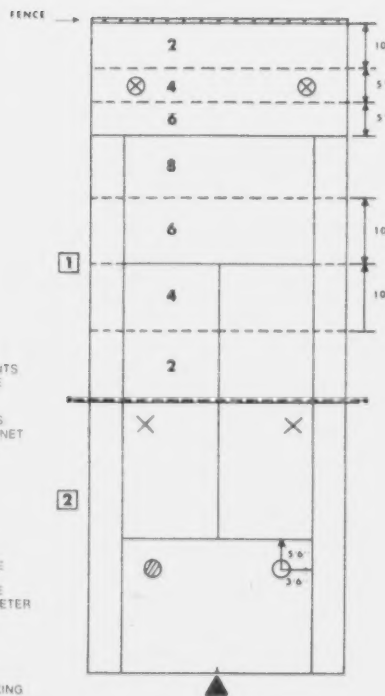


Figure 1. Diagram of the testing court

Forehand

Fence

1	3	4	12
9	10	11	13
7	8	5	6
14	1	2	3

Net

Backhand

Fence

2	3	4	5
7	8	9	10
11	12	13	14
1	2	3	4

Net

Total 137

Score 71

Total 56

Score 56

Name _____

Date _____

Figure 2. Scored scorecard

Scoring. Each trial number is marked on the scorecard diagram in the same relative position as the ball lands on the court. If the ball goes over the restraining rope, that trial number is circled. After the student has completed the test, the scores for the forehand and backhand are calculated. If the ball goes over the rope, that trial scores one-half the value of the area in which the ball lands. The total score is the sum of 14 forehand trials and 14 backhand trials (See Scored Scorecard, Figure 2.)

Administration of the test:

1. The recorder and tosser for each station are selected and given prior instructions and practice.
2. In addition to the recorder and tosser, four or five students are assigned to each station: the subject, the rope judge and retrievers. These four or five students rotate positions after each subject has completed all trials for both the forehand and the backhand.
3. The instructor adds the scores to insure accuracy of scoring and addition.

Statistical Analysis. The test was administered to three groups of college age (or older) women who scored as follows:

Group	Number	Mean	Standard Deviation
Beginning	68	70.96	21.31
Intermediate	19	105.37	15.26
Advanced	12	176.08	12.57

Reliability. The correlation for the sums of the odd and even-numbered trials was .84. When the Spearman-Brown Prophecy Formula was applied, the reliability for the total test was found to be .91. An r of .91 was statistically significant beyond the .01 level.

Validity. Discriminatory validity was established for the test since it differentiated between the three skill level groups beyond the .001 level of confidence.

Working the Opponent Out of Position

PATRICIA ANN SHERMAN

A competitor in tennis matches, teacher, and coach since 1958, Patricia Ann Sherman's experience includes teaching in city recreation programs, private tennis camps, high school programs, and at the college level. She was ranked second in women's singles and women's doubles in the Northwestern Section of the USLTA for the 1968 playing season. She received her B.S. degree from Winona State College, Winona, Minnesota, and her M.A. degree from the University of Iowa, Iowa City. She is currently an instructor in the Physical Education Department and tennis coach at the University of Iowa.

In the game of tennis, each player is attempting to maneuver her opponent out of position while setting herself up for a winning placement to the open area of her opponent's court. While maneuvering the opponent, the player should strive to force the opponent to cover as much of the court as possible. She should also strive to reduce the opponent's possible angles of return while increasing her own at the same time. This can be done by attempting to establish a rhythmic pattern and then through variation of spin, speed, and placement, the player should be able to hit a winning placement or cause her opponent to err.

There are five basic patterns which should be very effective at the intermediate and advanced levels of play. These patterns can be used as practice drills (to develop conditioning, accurate stroke placement, concentration, and meaningful game-like situations), or as basic strategy to work from in competitive play. The choice of the winning placement which is to be used by a player in any of the patterns to follow depends upon many variables. The player must take into account the strengths and weaknesses of her opponent and her own ability to hit each of the variations effectively. She must maintain variety to prevent consistent anticipation by the opponent, and she must consider her position when initiating the stroke.

Diagrams will be used to show two of the basic patterns and to designate the winning placements which can be hit from these patterns. The key for the diagrams is found in Figure 1.

Play Number	Stroke (A)	Return (D)
1		
2		

Target 1		a
Target 2		b
Target 3		c
Target 4		d

"A"	Attacking player
"D"	Defensive player
▲	Bounce of the ball
	Movement pattern of the player
3	The number indicates the movement for each play

Figure 1. Key to diagrams

Five Basic Patterns

Continuous Deep Crosscourt Pattern

Description of Pattern. This pattern is established by both players ("A" and "D") hitting continuous deep crosscourts as indicated in Figure 2. Each player makes the stroke and then goes back to the center of the court behind the baseline in good ready position for the opponent's return. This pattern should be continued until the opponent begins to anticipate the next shot and begins to move in that direction. At this point the player should attempt a variation in the pattern which may result in a winning placement or cause the opponent to err.

Winning Placement. Variations which can be employed from the continuous deep crosscourt pattern include the following:

1. A deep drive down-the-line (a). This will be effective if "D" anticipates another crosscourt to the same corner and begins to move in that direction or if "D" does not return to the center of the court quickly enough to be able to cover a shot to the opposite corner.
2. A drop shot to either corner (b). This will cause "D" to cover a large area of the court, possibly to change direction, and it will force "D" to make a good approach shot. This is effective if "D" is tired, lags in the backcourt, or doesn't have a forcing approach shot and net game.

3. A short sharp crosscourt (▨c). In this placement "D" is forced far out of position and must hit a good forcing return or she will be caught in poor position for the next shot.
The pattern and placements as shown in Figure 2 should be reversed for the continuous deep backhand crosscourt pattern.

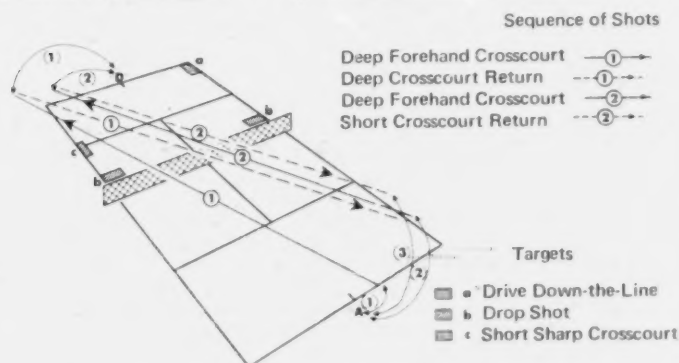


Figure 2. Continuous deep forehand crosscourts

Pattern Deep to One Particular Corner

Description of Pattern. This pattern is established by one player hitting deep to a particular corner, regardless of the position of the return from the opponent. This pattern is continued until the opponent begins to anticipate the next stroke and then variations should be employed.

Winning Placements. From this established pattern to a particular corner, a winning placement can be hit to one of the following areas:

1. A deep drive or a short sharp crosscourt drive to the opposite corner. This is effective if "D" anticipates a stroke to the same corner or if she lags on her return to the center of the court after her previous stroke.
2. A drop shot to the opposite corner. This will force "D" to cover a large area of the court, to change direction, and to make a good approach shot.

Crosscourt – Down-the-Line Pattern

Description of Pattern. This pattern is illustrated in Figure 3. The ball is hit to alternate corners with one player (player "D") hitting

down-the-line while the other (player "A") hits crosscourt. Each player is to hit her designated stroke and then return to the center of the court just behind the baseline in good ready position for the opponent's return. In this pattern each player must run the complete distance across the court for each return. Notice that player "D" must cover the greater court area since "A's" crosscourts draw "D" outside of the sidelines. Continue this pattern until the opponent begins to anticipate the next stroke and then employ variations.

Winning Placements. When the Crosscourt-Down-the-Line Pattern has been established, a winning placement can be hit in one of the following ways: (Assume the return from "D" is down-the-line to "A's" forehand corner - ... (2) --> -).

1. A deep forehand crosscourt (a). This will be effective if "D" has been pulled far to her left on the previous stroke and is unable to get to the forehand crosscourt.
2. A deep drive down-the-line (b). "D" will be returning to the center of the court and anticipating a crosscourt. The change in direction makes this an effective placement.
3. A short drive down-the-line (c). "D" again must change direction quickly, cover a greater court area, and also must hit a good forcing return or she will be caught in poor position for the next stroke.
4. A short, sharp forehand crosscourt (d). "D" will have to travel a long distance to get to the shot and if the return is not a deep forcing shot she will again be caught in poor position.

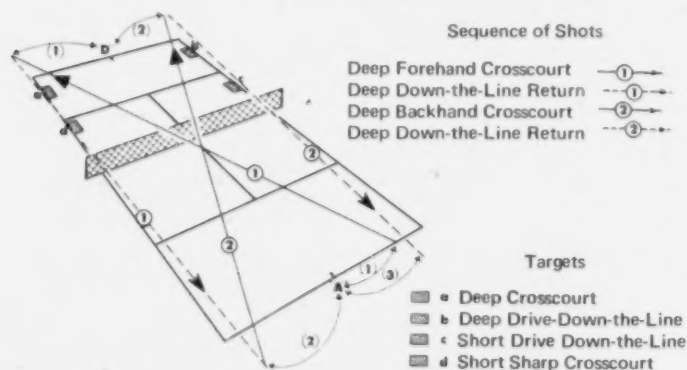


Figure 3. The crosscourt - down-the-line pattern

**Combination of Deep Drives – Crosscourt Drop –
and a Sharp Placement to the Opposite Corner**

Description of Pattern. Another winning combination which can be used effectively within a point includes deep drives, followed by a crosscourt drop shot, and then a sharp winning placement hit to the opposite corner. This forces the opponent to cover a large portion of the court, to hit a good approach shot, and to gain good net position for the return. If the opponent begins to anticipate this drive, hit a drive to the opposite side.

Deep Drives – Drop – and Lob Combination

Description of Pattern. In this pattern the offensive player can hit deep drives to the corner, followed by a drop shot to the opposite side of the court, and then lob to the alternate corner. This will tire the opponent quickly for she must not only cover the entire width of the court, but also the entire length. The lob will give the offensive player a third possible placement following the drop shot.

Breaking a Pattern

If a player is being drawn out of position while employing a particular pattern, she can break the pattern by hitting the ball deep to the center of her opponent's court. This will cut down the opponent's possible angle of return and give the player time to recover her position once again.

Through the practice of these five basic patterns and their variations of winning placements, the players should develop good conditioning, fine positioning on the court, fine point accuracy, and a repertoire of basic patterns to employ in competitive play.

Beneficial Indoor Drill for Advanced Players

E. DAWN McDONALD

E. Dawn McDonald is a graduate of Sargent College, Boston, Massachusetts, and received her master's degree from Southern Illinois University, Carbondale. She is an assistant professor in charge of tennis and badminton at Iowa State University, Ames and is the Iowa DGWS tennis chairman.

The following drill or game has been found to encourage good form and practice for the intermediate or advanced tennis player. When this group is forced inside it becomes necessary to have a large area for many to continue hitting safely with regular tennis balls and regular tennis rackets. This drill accommodates 24 students in one gymnasium.

The equipment required consists of: paddles, or paddle rackets, fleeceballs, badminton courts and nets, standards and rope. The nets are put across the courts with the top of the net being 30 inches above the floor. A rope is strung across the court above the net at a height of 36 inches above the floor.

The object is to volley the fleeceball over the net and under the rope. The fleeceball may be hit as a volley or after one bounce. The players will find that they will have to use full groundstrokes in order to have the fleeceball travel the length of the court. The restraining rope will make it necessary for the players to bend their knees as they stroke. If the players resort to a dropped racket head, they will hit the fleeceball over the rope.

This drill may be adapted for various needs. Some students will derive sufficient challenge in trying to volley consecutively over the net, under the rope and within the boundary lines of a badminton court. These students may raise their goal of number of consecutive hits. For the students who need the challenge of court play, a service may be added and then the playing of points. A service court may be marked on the floor quite easily with the applicator type white shoe polish. The service court should be adjacent to the net, as in traditional tennis. The depth of this court will vary with the ability of the players. The service must pass under the restraining rope. The VASSS scoring adapts very well to class play.

This drill may be easily modified for existing conditions. Lines on the floor are not a necessary part of the skills involved. Students

should not be expected to be highly successful in their first participation with these skills. The restricting zone forces the student to work hard at full groundstrokes. The student cannot be successful with lazy knees or footwork. The challenge will come with practice.

Nielsen Stadium: A Top 10 Rating

NANCY RICHWINE

Nancy Richwine is a lecturer in physical education and chairman of the Women's Elective Tennis Program at the University of Wisconsin, Madison. She received her B.S. degree from West Chester State College, West Chester, Pennsylvania and her M.S. degree from the University of Wisconsin.

"In Grateful Appreciation of the Privilege of Good Education." This quotation is engraved on a plaque which hangs in the lobby of the Nielsen Tennis Stadium, one of the largest buildings on the University of Wisconsin, Madison campus. Arthur C. Nielsen, Sr. and his wife Gertrude S. Nielsen, University of Wisconsin alumni, are responsible for the quotation as well as the excellent indoor tennis and squash facility. Arthur Nielsen of the Nielsen Television Ratings was captain of the varsity tennis team when he was a student at Wisconsin. His interest in tennis and concern over the lack of adequate tennis facilities prompted him to donate approximately \$2,250,000 to the University to create one of the largest indoor tennis buildings in the world.

The building, containing 12 indoor tennis courts, 5 singles squash courts, and 1 doubles squash court was completed in the spring of 1968. The tennis courts are air-cooled and the squash courts are air-conditioned. A large air-conditioned lounge fronted by glass permits an excellent view of two exhibition tennis courts. A completely fitted pro shop, large dressing rooms, and spectator galleries (accommodating 1,500 people) add to the versatility of the building. Rebound nets, overhead suspended balls, strokers, a video-playback camera, and three Ball Boy machines are available to the tennis instructor for class use.

The tennis courts have a 42-foot high, white acoustic ceiling with diffused lighting for optimal playing conditions. The resilient court surface is composed of a rubberized asphaltic emulsion called Saf-Pla. The green color coat is a plexi-pave finish. Each court is separated from the others by curtains and heavy netting, adding some privacy and the opportunity for uninterrupted play.

In addition to the extensive recreational use of the building, other programs include elective coed credit classes which are taught during the less desirable recreation hours. The men's and women's varsity teams use several courts for practice. Group lessons are offered to

adults throughout the year and to children and high school students during the summer. In the course of a week's operation, the stadium can accommodate approximately 5,300 different tennis and squash players.

During recreation hours individuals may call several days prior to the time they wish to play to make a court reservation. Students are charged 50 cents for singles and 25 cents for doubles play. The staff is charged 50 cents for doubles and one dollar for singles play. Each court session runs for one hour and 20 minutes. The fee, compared to most other indoor facilities, where charges generally run from 5 to 10 dollars an hour, is quite minimal.

There is no doubt that the stadium and its energetic staff have helped to create a growing interest in tennis on campus and in the community. The enthusiasm shown by housewives, businessmen, high school students and our own students and faculty keeps the stadium occupied from 8:00 a.m. until 11:00 p.m. every day of the week. This response has set in motion plans for six additional tennis courts to be located outdoors adjacent to the present facility. Each court will be 60 by 120 feet and of a comparable surface to the indoor courts.

The extensive use made of the Nielsen building is a tribute to a man who has enjoyed tennis and squash his entire life. His gift has enabled others to learn and pursue these activities. Here tennis can be a year-round as well as a lifetime sport. "In Grateful Appreciation to the Nielsens for the Privilege of Participating in Tennis in one of the Finest Buildings of its Kind in the World."

Selected Tennis Bibliography

Revised by: SHARON CROW
Skidmore College
Saratoga Springs, N.Y.

Books—General

- BARNABY, JOHN M. *Racket Work: The Key to Tennis*. Boston: Allyn & Bacon, 1969.
- GRIMSLEY, WILL. *Tennis: Its History, People, and Events*. Englewood Cliffs, N.J.: Prentice Hall, 1971.
- KING, BILLIE JEAN. *Tennis to Win*. Evanston, Ill.: Harper & Row, 1970.
- LANEY, AL. *Covering the Court*. New York: Simon & Schuster, 1968.
- LAVER, ROD. *The Education of a Tennis Player*. New York: Simon & Schuster, 1971.
- LEIGHTON, JIM. *Inside Tennis: Techniques of Winning*. Englewood Cliffs, N.J.: Prentice Hall, 1969.
- MELTZER, PAUL. *Advanced Tennis*. New York: Sterling Publishing Co., 1968.
- TALBERT, WILLIAM F. *Weekend Tennis*. Garden City, N.Y.: Doubleday & Co., 1970.
- _____. *The Game of Doubles*. Philadelphia and New York: J.B. Lippincott Co., 1968.
- TALBERT, WILLIAM F. and OLDS, BRUCE S. *Stroke Production in the Game of Tennis*. Philadelphia: J.B. Lippincott Co., 1971.
- TILDEN, WILLIAM T. *Match Play and Spin of the Ball*. Port Washington, N.Y.: Kinnikat Press, 1968.
- UNITED STATES LAWN TENNIS ASSOCIATION. *Official USLTA Yearbook and Tennis Guide*. New York: USLTA. Current edition.

Books for Teachers

- AMERICAN ASSOCIATION FOR HEALTH, PHYSICAL EDUCATION, AND RECREATION. *Ideas for Tennis Instruction*. Rev. ed. Washington, D.C.: AAHPER, 1967.
- DAVIS, DOROTHY, ed. *Selected Tennis and Badminton Articles*. Washington, D.C.: AAHPER, 1963.
- DRIVER, HELEN I. *Tennis for Teachers*. Madison, Wis.: H.I. Driver Co., 1964.
- FAULKNER, ED. *Tennis: How to Play it, How to Teach it*. New York: Dial Press, 1970.

- FOGLEMEN, HARRY. *Tennis - For the Coach, Teacher, and Player*. Davidson, N.C.: Davidson Printing Co., 1963.
- HARMAN, BOB. *Use Your Head in Tennis*. Port Washington, N.Y.: Kennikat Press, 1966.
- KENFIELD, JOHN F., JR. *Teaching and Coaching Tennis*. 2d ed. Dubuque, Iowa: Wm. C. Brown Co., 1971.
- PLAGENHOFF, STANLEY. *Fundamentals of Tennis*. Englewood Cliffs, N.J.: Prentice-Hall, 1970.
- RAMO, SIMON. *Extraordinary Tennis for the Ordinary Player*. New York: Crown Publishers, 1970.
- TALBERT, WILLIAM F. and OLDS, BRUCE S. *The Game of Singles*. Philadelphia and New York: J.B. Lippincott Co., 1962.
- TYLER, JO ANN, ed., *Selected Tennis and Badminton Articles*. Washington, D.C.: AAHPER, 1970.
- UNITED STATES LAWN TENNIS ASSOCIATION-AMERICAN ASSOCIATION FOR HEALTH, PHYSICAL EDUCATION, AND RECREATION JOINT COMMITTEE. *Tennis Group Instruction*. Washington, D.C.: AAHPER, 1963.

Books for Students

- GENSEMER, ROBERT. *Tennis*. Philadelphia: W.B. Saunders Co., 1969.
- HENDRIX, JOHN. *Fundamentals of Tennis*. Columbus, Ohio: Merrill Publishing Co., 1968.
- MOTTRAM, TONY. *Play Better Tennis*. London: Stanley Paul & Co., 1971.
- MURPHY, CHET. *Advanced Tennis*. Dubuque, Iowa: W.C. Brown Co., 1970.
- PALFREY, SARAH. *Tennis for Anyone!* New York: Simon & Schuster, 1966.
- PELTON, BERRY C. *Tennis*. Rev. ed. Pacific Palisades, Calif.: Goodyear Publishing Co., 1969.
- TILDEN, WILLIAM T. *How to Play Better Tennis*. Reprint. New York: Simon & Schuster, 1965.

Articles—Research—Skill Tests

- DiGENNARO, JOSEPH. "Construction of Forehand Drive, Backhand Drive, and Service Tennis Tests." *Research Quarterly* 40 (Oct. 1969), 496-501.
- DOBIE, DOROTHY. "Effectiveness of a Conditioning Program on Selected Tennis Skills of Women." *Research Quarterly* 40 (March 1969), 39-44.
- HEWITT, JACK E. "Classification Tests in Tennis." *Research Quarterly* 39 (Oct. 1968), 552-555.

KEMP, JOANN and VINCENT, MARILYN F. "Kemp-Vincent Rally Test of Tennis Skill." *Research Quarterly* 39 (Dec. 1968), 1000-1004.

Articles-General

LAVER, ROD. "The Five Toughest Shots in Tennis." *Esquire* 73 (June 1970), 146-147.

McCLEMENTS, LARRY. "Begin Tennis Competition Early." *JOHPER* 40 (May 1969), 41-42.

SCOTT, EUGENE L. "Forebrain and Backhand." *Esquire* 73 (June 1970), 141.

WILLIAMS, DARRELL and THIRSTRUP, LARRY. "Tennis Team Teaching." *JOHPER* 41 (May 1970), 30-34.

Magazines

Sports Illustrated, 541 N. Fairbanks Court, Chicago, Ill. 60611.

Tennis, Tennis Features, P.O. Box 5, Ravina Station, Highland Park, Ill. 60035.

Tennis U.S.A., Box 2248, S. Hackensack, N.J. 07606.

World Tennis Magazine, Box 3, Gracie Station, New York, N.Y.

Free Materials

Official Lawn Tennis Rules, Ashaway Products, Inc., Ashaway, R.I. 02084.

Tennis Kit, USLTA, 51 E. 42nd St., New York, N.Y. 10017.

Tennis Rules, Dayton Racquet Co., Arcanum, Ohio 45304.

Selected Tennis Visual Aids

Revised by KAREN EMERY
Dayton, Ohio

Prices listed are subject to change. Numbers in parentheses refer to film distributors listed.

Approach to Tennis. 14 min., 16 mm, b&w, color. Rental \$7.50; Sale color \$190, b&w \$80. (17). Techniques of singles play demonstrated by leading amateurs. Scenes of National Tennis Championship included. Slow motion, animation — ideal as basic instruction and a review for experienced player. Spanish and French prints available.

Basic Tennis Strokes. 15 min., 16 mm, color. Sale \$100 (includes Practice Tips booklet). Rental is handled by Instruction Media Center, Michigan State University, East Lansing, Mich. 48823. (3) Forehand, backhand, volley, service, lob, and smash are demonstrated in semi-slow motion. Accompanying narrative and titles point out basic points just as coach would in actual practice sessions.

Beginning Tennis. 1964. 14 min., 16 mm, sd., color or b&w. Sale color \$145, b&w \$75. Rental \$10 for three days, plus postage. (1) Shows how the teacher instructs beginning and advanced players in individual and group situations. Analysis of forehand and backhand drives and volleys, serve, and smash.

Corrective Techniques, Backhand and Forehand Drives. 15 min., color. Purchase \$150. Rental \$25. (14). How to recognize and correct errors.

Corrective Techniques on the Service. 12 min., color. Sale \$150. Rental \$25. (14). How to recognize and correct errors.

Elementary Tennis Instruction. 15 min., color. Rental \$25; Sale \$150. (18). Dennis Van der Meer Film. Introduction to tennis skills. Good for teachers of beginners in groups, and recommended for physical education teachers.

Girls' Tennis. 16 mm loop, slow motion. Sale \$25 (18 loops per set) (4). Doris Hart, Louise Brough, June Stack, Nancy O'Connell, and Phyllis Saganski show strokes, footwork, grips, serves, and many other techniques.

Great Moments in the History of Tennis. 1965. 40 min., 16 mm, sd., b&w. May be viewed free of charge. Sale \$125. (7). This excellent film traces the game of tennis from its inception to current times. Excerpts of great matches allow the viewer to see the different

- styles of dress and play. Narrated by Chris Schenkel and Roy Emerson, the film highlights over 80 international players, from Dick Sears and Dwight Davis to Dennis Ralston and Maria Bueno.
- How To's of Tennis.* 25 min., 16 mm, b&w. (12). Series of 5 minute shorts on volley, forehand, serve, and lob-smash demonstrated and explained by Kramer, Buchholz, Trabert, McKay, and Ralston, respectively. Also includes drills and tips on practice. Narrated by Bob Richards.
- On Tennis with Billie Jean King.* 15 min., color, b&w, 1969. Sale color \$185 each, \$495 series; b&w \$120 each, \$360 series. (16). Three films — junior-senior high school, college, and advanced.
- Slazenger Films.* Rental \$35. (13). Instruction series made in England. Introduction to: Ball sense (11 min.); Starting to play (15 min.); Service (9 min.); Court positions and net play (8 min.).
- Tennis.* Super 8 mm loops, cartridge Chet Murphy. Sale \$137 series. (15). Series of six loops covering grip and forehand drive; grip and backhand drive; footwork; service; volleys and half volleys; lobs and smashes.
- Tennis.* 4 min. each. Super 8 mm loops. Sale \$21 each, \$84 series. (14). Consultant Bill Lufner. Series covers forehand; backhand; service; smash; court position, and volley.
- Tennis.* Six filmstrips, revised. 42 min., 35 mm, si. or sd., color. Sale si. \$54, sd. \$62.50. (2, 4, 10). Rental \$3.50 plus postage. (5). The game, getting ready to play, the forehand drive, the backhand drive, the service, and rules simplified.
- Tennis.* 8 mm and Super 8 mm loops. Sale \$9 (8 mm), \$11 (super 8 mm), \$50.95 (8 mm set of 6), \$62.95 (Super 8 mm set of 6). (2, 10). Individual loops on the service, forehand drive, backhand drive, overhead smash, lob, and the volley.
- Tennis—A Game of a Lifetime.* 1966. 19½ min., 16 mm, sd., b&w. Sale \$71. (11). Filmed in Australia under technical director Harry Hopman, captain of the Australian Davis Cup Team. Featuring high-ranking amateurs Roy Emerson and Fred Stolle as well as American star, Arthur Ashe. Slow motion is employed in the demonstration sequences to help ensure understanding.
- Tennis Anyone.* 12 min., color. Purchase \$150. Rental \$25. (14). Highlights of a young tennis player's visit to tennis camp.
- Tennis Doubles Strategy.* 1966. 11 min., 16 mm, color, b&w. Sale \$130 color, \$70 b&w. (1). Reviews basic strokes of tennis and demonstrates offensive and defensive strategy in the doubles game. Features ranked players during tournament competition. In slow motion and regular speed with stop frame action.
- Tennis Elementary Fundamentals.* 1965. 11 min., 16 mm, sd., color or b&w. Sale color \$130, b&w \$70. Rental \$10 for three days, plus postage. (1). Forehand and backhand drives, flat and slice

serves, receiving serve, and volley are demonstrated by nationally ranked players Tory Fretz, Darlene Hard, and Karen Susman. Verbal analysis and stop-action make this an excellent instructional film for players of all abilities.

Tennis for Beginners. 16 min., 16 mm, sd., b&w. Sale \$52.50. Rental \$20. (6). Alex Olmedo demonstrates the basic tennis strokes, grips, footwork, body control, and balance. Also includes tips on practice and game improvement.

Tennis Group Instruction. Filmstrip. Sale \$8.00. (8). Over 50 frames illustrate class organization for group instruction. Emphasis is on effective utilization of limited space through use of formations and teaching stations. With record and booklet.

Tennis Intermediate and Advanced Fundamentals. 1965. 11 min., 16 mm, sd., color or b&w. Sale color \$130, b&w \$70. Rental \$10 for three days, plus postage. (1). Excellent verbal analysis and demonstration of American twist serve, drop volley, lob volley, forehand and backhand smashes, half volley, lobs, and chop shots. Nationally ranked players Tory Fretz, Darlene Hard, and Karen Susman execute skills in game play and practice. Slow motion and stop-frame action provide a good opportunity to view correct technique.

Tennis Singles Strategy. 1966. 11 min., 16 mm, sd., color, b&w. Sale \$130 color, \$70 b&w. (1). Reviews basic strokes, and demonstrates offensive and defensive strategy in the singles game. Features ranked players during tournament competition. In slow motion and regular speed with stop frame action.

Tennis Tactics. 12 min., color. Purchase \$150. Rental \$25. (14). Basic tactics for singles and doubles for every level of play.

Tennis Techniques. 12 min., 16 mm, sd., color. Sale \$90. Rental \$7 (one day), \$12 (three days), \$15 (five days). (9). Emphasis is on volley and forehand and backhand drives. Techniques of demonstrating and explaining group teaching particularly good. Action shots of Pauline Betz demonstrate the importance of correct technique.

Bulletin Board Materials

Tennis Group Instruction. AAHPER, 1201 16th St., N.W., Washington, D.C. 20036. 6 Posters, \$9. A series of 24 photo illustrations reproduced as six 24" x 30" durable plasticized posters, demonstrating class organization for group instruction.

Tennis Technique Charts. DGWS. AAHPER, 1201 16th St., N.W., Washington, D.C. 20036. 12 charts, \$1.50. Illustrate courts and equipment, forehand and backhand grips, mechanics of strokes, forehand and backhand drives, serve, volley, smash, lob, slice, ball flights, tournament diagrams.

Film Distributors

- (1) All-American Productions and Publishers, c/o George B. Pearson, Dept. of Health, Physical Education, and Recreation, University of Alabama, University, Ala. 34586.
- (2) Athletic Institute, 805 Merchandise Mart, Chicago, Ill. 60654.
- (3) Frank Beeman, Dept. of Intercollegiate Athletics, Michigan State University, East Lansing, Mich. 48823.
- (4) Don Canham's, 745 State Circle, Ann Arbor, Mich. 48104 (Wolverine Sports Supply).
- (5) Ideal Pictures, 1558 Main St., Buffalo, N.Y. 14209; 417 N. State St., Chicago, Ill. 60610; 1840 Alcatraz Ave., Berkeley, Calif. 94703.
- (6) Owen Murphy Productions, Inc., 666 Fifth Ave., New York, N.Y. 10019.
- (7) Philip Morris Incorporated, 100 Park Ave., New York, N.Y. 10017 (Address requests to Roy Emerson).
- (8) AAHPER Publications-Sales, 1201 16th St., N.W., Washington, D.C. 20036.
- (9) The Coca-Cola Export Corporation, 515 Madison Ave., New York, N.Y. 10022.
- (10) T.N. Rogers Productions, Lookout Mountain Studio, 6641 Clearsprings Rd., Santa Susana, Calif. 93063.
- (11) United States Lawn Tennis Association, 51 E. 42nd St., New York, N.Y. 10017. (Rental films available).
- (12) Wheaties Sports Federation, Title Insurance Bldg., Minneapolis, Minn. 55401.
- (13) International Sports Productions, 19 W. 44th St., Rm. 1418, New York, N.Y. 10036.
- (14) Dennis Van der Meer, Berkeley Tennis Club, Berkeley, Calif. 94705.
- (15) Holt, Rinehart and Winston, 383 Madison Ave., New York, N.Y. 10017.
- (16) Independent Film Producers Company, P.O. Box 501, Pasadena, Calif. 91102.
- (17) Association Instructional Materials, Division of Associated Films, Inc., 600 Madison Ave., New York, N.Y. 10022.
- (18) Frith Films, Box 424, Carmel Valley, Calif. 93924.

USLTA Women's National Collegiate Tennis Championships

Eligibility requirements for the Women's National Collegiate Championships and all Sectional Championships shall be as follows: (exception Point 5)

1. Any woman student who is presently enrolled as a full-time undergraduate student in a university, college, or junior college, and is approved by her college as meeting its academic requirements, shall be eligible. An undergraduate student is defined as one who has not received the B.A. degree or its equivalent.
2. A student may participate in a tournament held during the summer provided she was enrolled for the semester or quarter preceding the tournament. (Exception: Seniors graduating any time during the school year prior to the tournament may participate.)
3. Transfer students are immediately eligible for participation following enrollment in the institution.
4. A student may participate no more than four times.
5. Entries in The Women's National Collegiate Championship shall be limited to four players from each college, all of whom may compete in singles. A doubles team shall consist of two players from the same college, and each college is limited to two doubles teams. *Note:* Singles players may also play doubles. Exception: Sectional championships may determine their own regulations in regard to the number of entries in singles and doubles play.
6. All participants shall be of amateur standing as defined by the USLTA.
7. All participants in The Women's National Collegiate Championship and in all sectional championships shall be enrolled with the USLTA.
8. All participants shall be certified by the chairman of the Department of Physical Education for Women of their respective institutions.
9. The responsibility for the health status of students shall be assumed by the respective institutions.

Awards at the Tournament

The Treesh Bowl is given to the singles winner, and the Pat Yeomans Tray is presented to the doubles champions. A team trophy donated by Mrs. Catherine Sample is awarded to the winning college for one year. Mementos may be given to the team members

by the host college. USLTA silver balls are awarded to the singles and doubles winners and USLTA silver medals to the runners-up.

The Woman's Tennis Leadership Award: This award was donated to the USLTA by Mrs. Judy Barta of Bronxville, New York, to be awarded annually at the National Collegiate Championships to a woman physical educator who has made outstanding contributions to the development and growth of tennis for girls and women. The selection for this award will be made jointly by the USLTA and the DGWS. Persons wishing to suggest qualified women who should be considered for this award should send their nominations to Mrs. Monroe Lewis, 6805 Washington Boulevard, St. Louis, Missouri 63130. The first woman so honored was Mrs. Leull W. Guthrie of Stanford University in 1969. In 1970 Joan Johnson of California State College, Los Angeles, was recipient of the award.

The 1972-73 tournament will be held at Auburn College, Auburn, Alabama.

TENNIS STUDY QUESTIONS

1972-1974

PART I

Directions

Indicate the umpire's decision in the following situations. There is only one best answer. *A* refers to the server and *B* refers to the receiver. Please assume that no conditions exist other than those stated.

SP. Server's point
RP. Receiver's point
F. Fault
L. Let
BCP. Ball continues in play

1. Player A's forehand drive touches the net post and hits the ground within the receiver's court.
2. While volleying at the net, player A accidentally touches the top of the net. Her return is good. Player B is unable to return the ball.
3. A player serves from the wrong court. She loses the point and then remembers that she served from the wrong court. She requests that a let be declared.
4. The service, or a ball in play, strikes a ball lying in the court.
5. Player A crosses an imaginary line in extension of the net before making a good return. Player B fails to return the ball.
6. The partner of the server who is at the net volleys a return to win the point. After contacting the ball on his own side of the net, the racket head passes over the net.
7. In doubles, Player A serves to Player B who returns the serve. Player C, who is Player A's partner, throws her racket which hits the ball and causes it to go over the net and into the opponent's court. Neither Player B nor Player D returns the ball.
8. The score is 30-30. A player serves the second ball. The umpire calls "fault" and then corrects himself and calls "play." The receiver hesitates, attempts but fails to return the serve.
9. A player prefers to serve from a position which is very close to the baseline. During the service motion and before the ball is hit, one foot is swung inside the baseline but does not touch the court.
10. Player A serves underhand. The service lands in the correct service court.
11. Player A executes a shot which has so much spin that it rebounds back over the net. Player B dashes toward the net and

manages, without touching the net, to tap the ball just before it touches the court on the opponent's side of the court.

12. The second ball served by Player A hits the receiver's partner before touching the ground or a permanent fixture.
13. A spectator walks across the back of the court as the receiver attempts to return a forehand drive. The ball lands in the net as the player was forced to restrict the backswing to avoid hitting the spectator.
14. In a singles match played on a court used for singles or doubles, Player A serves from behind the baseline between the singles sideline and the doubles sideline.
15. A player's first service is long and is hit with such force that it rebounds from the backboard behind the court and distracts the receiver trying to return to second serve. The receiver requests a let.

PART II

Directions

Read the questions carefully. Select the one item which best answers the question.

16. The server's partner stands in a position that obstructs the view of the receiver. The receiver fails to return the serve. What is the decision?
 - a. Let, and server's partner is asked to move so as not to obstruct receiver
 - b. Fault
 - c. Point for receiver
 - d. Point for server
17. During the first service of a game, Player A has a single fault; on the second service, Player A goes through the complete serving motion and misses the ball. What is the umpire's decision?
 - a. Love-15
 - b. 15-Love
 - c. Let, one more ball
 - d. Let, two more balls
18. A linesman's view is obstructed by a player so that he cannot make a decision on a ball that falls close to the line. What is the procedure?
 - a. The umpire makes the decision.
 - b. The umpire may ask another linesman.
 - c. The umpire orders the point replayed.
 - d. May be any one of the above.

19. Which of the following is the privilege and duty of the umpire?
 - a. Can overrule the decision of a linesman.
 - b. Can remove a linesman.
 - c. Should repeat the call of the linesman.
 - d. Has the authority to postpone the match at any time.
20. What choices may the winner of the toss have?
 - a. She automatically serves first.
 - b. To serve, in which case her opponent chooses side
 - c. Side, in which case her opponent chooses to serve or to receive
 - d. Side, or the right to serve or receive, or to require her opponent to make first choice
21. When may a match be postponed?
 - a. A player fails to report in time for her match.
 - b. Weather conditions are bad.
 - c. A player is injured.
 - d. A player becomes ill.
22. When may the serving order be changed?
 - a. When the teams change from one side of the net to the other.
 - b. At the start of any game in which the team is serving.
 - c. At the start of a new set.
 - d. Never during the same match.
23. The receiver is tying her shoe lace as the first ball is served. At the last moment she sees that the ball is good and attempts to return it, but fails. What is the decision?
 - a. Let
 - b. Fault
 - c. Point for server
 - d. Point for receiver
24. The order of receiving the service is accidentally changed by the receivers. Which of the following statements is true?
 - a. Partners resume their original order of receiving when it is their turn to receive again.
 - b. The order remains altered until the end of the game in which the mistake is discovered.
 - c. Any points made all count.
 - d. All of the above.
25. An umpire, without linesmen, notes a foot-fault violation of the server. What is his duty?
 - a. To warn the server and call a let
 - b. To make no attempt to call foot-faults
 - c. To warn the server and take no action as yet
 - d. To call a fault.

26. What is the procedure when an official postpones a match?
 - a. The match shall be replayed from the start.
 - b. The interrupted set shall be replayed from the start.
 - c. The previous score and the previous occupancy of the courts shall hold unless the players and referee agree otherwise.
 - d. None of the above because matches are never postponed.
27. The receiver's return passes outside the post below the level of the net and bounces in the correct court. What is the decision?
 - a. Ball remains in play.
 - b. Server's point
 - c. Receiver's point
 - d. Let
28. Which of the following are required specifications of a tennis racket?
 - a. 27 inches in length
 - b. Balanced evenly at half-way point
 - c. 9 inches across racket face
 - d. None of the above
29. Player B, who is returning Player A's serve, hits a backhand drive which goes over the baseline. Player A volleys the ball from behind the baseline and calls out. The ball does not go over the net. What is the correct decision?
 - a. Point for Player A as ball was out
 - b. Let, replay point
 - c. Point for Player A since she called out
 - d. Point for Player B
30. In which case is the service a let?
 - a. The ball strikes the top of the net and then hits the receiver before it touches the ground.
 - b. The ball goes through a hole in the net.
 - c. The ball strikes the top of the net and then bounces in the backcourt.
 - d. None of the above.

ANSWERS AND RULE REFERENCES

PART I

<i>Answers</i>	<i>Rule References</i>
1. BCP	22-a
2. RP	18-e
3. RP	10, case 1
4. BCP	22-e
5. SP	4, case 1
6. SP	22-d
7. RP	18-b
8. L	23, case 5
9. BCP	7
10. BCP	6, case 4
11. BCP	22-b
12. SP	16-a
13. L	23, case 1
14. F	6, case 1
15. L	23, case 6

PART II

<i>Answers</i>	<i>Rule References</i>
16. D	34
17. A	9
18. D	USLTA Tourn. Reg. 15
19. C	Tech. Off. Tennis Calling The Match p. 61, #7
20. D	5
21. B	29, 30
22. C	33
23. C	11
24. D	34, 36
25. D	USLTA Tourn. Reg. 14-b
26. C	29
27. A	22-c
28. D	
29. D	18-c
30. A	13

TECHNIQUES OF OFFICIATING TENNIS

TENNIS SUBCOMMITTEE Principles and Techniques of Officiating Committee

DUTIES OF THE REFEREE

In the case of each tournament, the tournament committee elects the referee.

The referee shall —

1. Know and apply all the rules, being able to decide quickly and to take full responsibility for his actions.
2. Have the power to appoint a substitute and may not umpire a match unless a substitute referee has been appointed.
3. Have the power to appoint and remove umpires, net umpires, and linesmen, and to assign courts and to start matches.
4. Decide any point of law which an umpire may be unable to decide, or which may be referred to the referee on appeal from the decision of an umpire. Such a decision is final unless reversed by the USLTA Executive Committee.
5. Have the sole power to excuse a competitor from playing for a definite period.
6. Default a competitor who has not been excused and refuses to play when called upon to do so.
7. At his discretion, at any time, postpone the match because of darkness or conditions of the ground or weather.
8. Give approval to postponement of a match by the umpire or order immediate continuation of the match.
9. Decide if an unfinished match is to be entirely replayed, if the contestants are so agreed.
10. Be present or arrange for a substitute during all play.
11. Sit beside the court, alongside the umpire's chair, during play of the finals and other important matches.
12. Give approval to the umpire's decision that new balls are necessary.

Combination and digest of "USLTA Tournament Regulations" and "Instructions for Tournament Officials" reprinted by permission from the *Umpires' Manual*, published by U.S. Lawn Tennis Association, 51 E. 42nd St., New York, N.Y. 10017.

DUTIES OF THE UMPIRE

The umpire shall —

1. Have an exact knowledge of the Playing Rules, Tournament Regulations, and their proper enforcement, and be responsible for the proper conduct of the match.
2. Be on hand and ready when the match is called.
3. Concentrate on the match and follow it keenly.
4. Be sure the court is correct, measure the net at the center and at the posts, and adjust the net during play, if necessary.
5. Check that there is a full complement of chairs for linesmen placed opposite the various lines and not facing the sun (see diagram).

Note: Umpire's chair should be centered on the net about 5 feet from it with the seat not less than 5 feet from ground (preferably 7 feet).

6. Arrange for toss for choice of court and service.
7. Score the match and record points on a scorecard.
8. Call the score promptly and distinctly.
9. Direct the players to change courts in accordance with Rule 25.
10. Watch for and call any infraction of rules and stay with your decision if you feel it is correct.

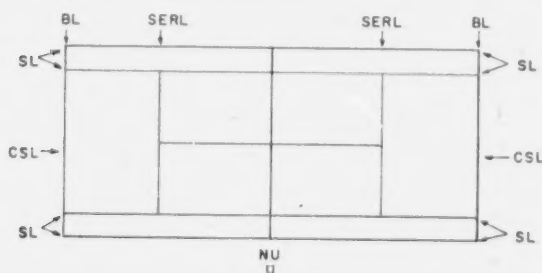


Diagram of Officials

BL—Base Linesman
SERL—Service Linesman
SL—Side Linesman

CSL—Center Service Linesman
U—Umpire seated on elevated stand
NU—Net Umpire seated by net post

11. Ensure that players serve from the proper court.
12. Ensure that players receive from the proper court.
13. Call service faults, lets, outs, and foot faults only if there are no linesmen or net umpire.

- 
14. Call a let and replay the point in accordance with Rule 23.
 15. If appealed to by a player during a rally, say nothing.
 16. Decide all doubtful or disputed strokes subject to decision of the linesmen, and all points of law, subject to an appeal to the referee.
 17. Decide when new balls are required, subject to approval of referee.
 18. Uphold the decisions of linesmen and net umpire.
 19. Order a point replayed when a linesman or net umpire corrects his decision if the call has affected the play of either side.
 20. Decide, at times when a linesman or net umpire is unable to render a decision himself, or call a let and replay the point.
 21. Announce the ten-minute intermission, noting time and name of player next to serve, and notify players three minutes before time is up. See that play is promptly resumed with all officials in place.
 22. Suspend play due to circumstances not within the control of the players.
 23. Postpone the match because of darkness or conditions of ground or weather, subject to approval of the referee.
 24. Remove a linesman or net umpire for just cause, subject to final decision of the referee.
 25. Do not let the gallery disturb the players. If it does, stop play and ask for cooperation of the spectators.
 26. Sign the scorecard and deliver it to the proper authorities at the end of the match.

CALLING THE MATCH

General Suggestions

1. Have a scorecard, two soft pencils with erasers, and a copy of the current DGWS Tennis-Badminton Guide.
2. Write the names of the competitors on the scorecard, and be sure of their correct pronunciation.
3. Be able to project your voice so it can be heard easily by gallery.
4. Allow the players not more than three minutes for warm-up.
5. After the warm-up announce: "This match is between Miss Jones and Miss Smith. Miss Jones serving. Linesmen ready? Play."
6. Call the name of each player as she serves for the first time.
7. The umpire repeats all calls of linesmen and the net umpire.
8. When the service falls into net on first serve, do not call a fault.
9. Act as the connecting link between the match and gallery; keep your eyes on the ball in play and concentrate attention on the correct calling of score and conduct of the match.

10. After a point is finished, first mark the scorecard and then raise your head and announce the score loudly and distinctly. Make announcements sharp and clear with a brief pause after each syllable.
11. Hold the scorecard with the thumb of your left hand touching the line of the game being played.
12. Call the server's score first.
13. Call advantage by saying, "Advantage, Miss Smith."
14. Call games as follows: "Game, Miss Smith; games are four to two, Miss Jones leads, first set."
15. Call set as follows: "Game and second set, Miss Smith, seven-five; sets are one-all."
16. After the first set, announce the set score every three or four games.
17. In making announcements, the words to be emphasized are the names and the score.
18. At the finish of a match announce: "Game set, and match—Miss Smith; score 3-6, 12-10, 6-3." Always give the winner's score first.
19. Correct the score whenever you have called it incorrectly. Call "Correction. The score is 15-all."
20. Wait until the applause subsides before calling the score.
21. Call "not up" if a player fails to reach ball on first bounce. Call this immediately to prevent confusion rather than waiting to see whether or not the ball is returned.
22. Call "four stroke" or "stroke" when a player loses the point by playing improperly, such as by touching the net with her body, racket, or anything she wears or carries while the ball is in play, or if she volleys the ball before it has passed the net.
23. Call all lets if there is not net umpire — both on services and on situations where the point is to be replayed, according to the rules. In calling a service let, say: "Let, first service," or "Let, second service."
24. If there is not a full complement of linesmen, call faults and outs on lines you have agreed before the match to judge.
Note: The further side lines and two base lines are hardest for an umpire to judge, so when possible, linesmen should be assigned to these lines. The service lines are the next most difficult to judge. If there are no linesmen, players may agree to judge further side lines and base lines in their own court.
25. If there are no base linesmen, call foot faults which may be judged from the chair.
26. Never announce "match point," or "set point."

PLAYERS CHANGE SIDES AFTER 1st GAME, 3rd GAME, ETC.										PLAYERS INITIALS
1	2	3	4	5	6	7	8	9	10	A B C D
SERVERS INITIALS	POINTS-SET No.1									GAMES
1 A B	/	/	/	/	/	/	/	/	/	1 0
2 C D	/	/	/	/	/	/	/	/	/	1 1
3 A B	/	/	/	/	/	/	/	/	/	2 1

The Scorecard shows that in the first game the score ran and would have been called thus: "15-love, 30-love, 30-15, 40-15, 40-30, game (A.B.)." In the second game: "Love-15, 15-all, 15-30, 30-all, 40-30, deuce, advantage (C.D.), deuce," and so on. The score of the server should be called first.

TECHNIQUE OF SCORING

1. Record names of players in the proper space on the scorecard.
2. After the order of service is determined, initial the spaces alternately on the scoreboard for the entire set. In case of a long deuce game in which there are not enough squares in which to record the score, it is advisable to go into the next page on the right or on the back of the card, but never down the card where the next game goes.
3. Put players' initials at the top of extreme right-hand column.
4. The points are recorded by means of pencil marks in the spaces beneath the word Points, putting the server's points on the top line and the receiver's on the second line, as illustrated above.

DUTIES OF LINESMEN

A linesman is appointed by the referee and may be removed only by the referee.

The linesman shall -

1. Be on hand and ready when the match is called.
2. Not wear white or light clothes.
3. Be seated facing the line he watches and be alert and concentrate every instant the ball is in play.
4. Sit quietly during play and not leave without the permission of the umpire or until another linesman has been put in his place.
5. Try to get out of the player's way if he sees he will interfere with a stroke.

6. *Watch the line - not the ball.* Sense where the ball will bounce, and if necessary, change position to see it.
7. Remember: "A ball falling on a line is regarded as falling in the court bounded by the line." (Rule 20.)
8. Call his decision loudly and sharply and with conviction. Accompany his call with a motion of his arm in the direction that the ball lands out of the court, if applause may drown out the call.
9. Call decisions as quickly as is consistent with accuracy.
10. Never call "out" until the ball has actually struck the ground or fixture outside the court.
11. Call only "out" or "fault"—never "good."
12. Change his decision when he realizes he has made an error. He must immediately tell the umpire who decides whether or not the point shall be replayed.
13. Call it to the attention of the umpire if he calls a score at variance with the linesman's decision.
14. Make his decision as he sees the ball and stick to it. The players, umpire, and referee may never overrule the decision of a linesman on a question of fact.
15. Put his hands over his eyes if the player obstructs his view of the ball or line. The umpire makes the decision, asks another linesman, or orders the point replayed.

The center service linesman shall —

1. Judge whether or not the server is standing on the proper side of the center service mark. If the server errs, call a foot fault.
2. Call a fault if the serve lands on wrong side of center service line.

The service linesman shall —

1. Call a fault if the serve lands behind the service line.

The side linesman shall —

1. Judge whether or not the server is standing on the proper side of the side line. If the server errs, call a foot fault.
2. Stand up when the service is in the court he is watching.
3. Call a fault if the serve lands outside the single side line.

The base linesman as foot fault judge shall —

1. Thoroughly understand the foot fault rule.
2. Call a foot fault only when positive the rule has been broken.

DUTIES OF THE NET UMPIRE

The net umpire shall -

1. Sit near the net post and call: (a) lets on service, and (b) balls that go through the net, the call being "fault" or "through."
2. Place his fingers lightly on the net cord during the service to detect service lets which may not be easily seen.
3. Keep a duplicate score of the match.
4. Call "not ups" when requested by the umpire.
5. Note when balls are to be changed and see that the balls are changed at the proper time.

RULES OF LAWN TENNIS AND CASES AND DECISIONS

The appended Code of Rules and Cases and Decisions, revised to 1959, is the Official Code of the International Lawn Tennis Federation, of which the United States Lawn Tennis Association is a member.

The Tournament Regulations is an addendum adopted by the United States Lawn Tennis Association and is official in the United States only, although it in no way conflicts with the Code or international practice.

Explanations, while not official utterances, may be considered a correct guide for interpreting the Rules. They have been prepared by the Tennis Umpires Association to amplify and explain the formal Code.

THE SINGLES GAME

RULE 1

Dimensions and Equipment

The court shall be a rectangle 78 feet long and 27 feet wide. It shall be divided across the middle by a net, suspended from a cord or metal cable of a maximum diameter of 1/3 inch, the ends of which shall be attached to, or pass over, the tops of two posts, 3 feet 6 inches high, the center of which shall be 3 feet outside the court on each side. The height of the net shall be 3 feet at the center, where it shall be held down taut by a strap not more than 2 inches wide. There shall be a band covering the cord or metal cable and the top of the net not less than 2 nor more than 2½ inches in depth on each side. The lines bounding the end and sides of the court shall respectively be called the base lines and the side lines. On each side of the net, at a distance of 21 feet from it and parallel with it, shall be drawn the service lines. The space on each side of the net between the service line and the side lines shall be divided into two equal parts, called the service courts, by the center service line, which must be 2 inches in width, drawn halfway between, and parallel with, the side lines. Each base line shall be bisected by an imaginary continuation of the center service line to a line 4 inches in length and 2 inches in width, called the center mark, drawn inside the court, at right angles to and in contact with such base lines. All other lines shall be not less than 1 inch nor more than 2 inches in width, except the base line, which may be 4 inches in width, and all measurements shall be made to the outside of the lines.

Reprinted by permission from the *Umpire's Manual*, published by the U.S. Lawn Tennis Association, 51 E. 42nd St., New York, N.Y. 10017.

Note—In the case of the International Lawn Tennis Championship (Davis Cup) or other official championships of the International Federation, there shall be a space behind each base line of not less than 21 feet, and at the sides of not less than 12 feet.

Explanation of Rule 1

The posts in doubles should be 3 feet outside the doubles court. The net should be 33 feet wide for a singles court, and 42 feet wide for a doubles court. It should touch the ground along its entire length and come flush to the posts at all points.

It is good to have a stick 3 feet 6 inches long, with a notch cut in at the 3-foot mark, for the purpose of measuring the height of the net at the posts and at the center. These measurements, as well as the measurements of the court itself, always should be made before starting to play an important match.

RULE 2

Permanent Fixtures

The permanent fixtures of the court shall include not only the net, posts, cord or metal cable, strap, and band, but also, where there are any such, the back and side stops, the stands, fixed or movable seats and chairs around the court, and their occupants, all other fixtures around and above the court, and the umpire, foot fault judge, and linesmen when in their respective places.

Note: For the purpose of this rule, the word "umpire" comprehends the umpire and all those persons designated to assist him in the conduct of a match.

RULE 3

Ball Size, Weight, and Bound

The ball shall have a uniform outer surface. If there are any seams, they shall be stitchless. The ball shall be more than 2-1/2 inches and less than 2-5/8 inches in diameter, and more than 2 ounces and less than 2-1/16 ounces in weight. The ball shall have a bound of more than 53 inches and less than 58 inches when dropped 100 inches upon a concrete base, and the deformation of more than .265 of an inch and less than .290 of an inch when subjected to pressure of 18 lb. applied to each end of any diameter. For regulations for testing balls, see USLTA *Umpire's Manual*.

Note: At the Annual General Meeting of the ILTF held on July 12, 1967, it was agreed that for the time being, nonpressurized balls and low pressure balls may not be used in the International Lawn Tennis Championship (Davis Cup), unless mutually agreed by the two nations taking part in any particular event.

The diagram illustrates the layout of a doubles tennis court and a singles tennis court. The doubles court (left) is 36 feet wide and 78 feet long, divided into two 18-foot wide service courts and two 18-foot wide back courts. The singles court (right) is 27 feet wide and 78 feet long, divided into two 13.5-foot wide service courts and two 13.5-foot wide back courts. Both courts show the baseline, service line, and center mark.

Note: "How often may a player have new balls?" According to Tournament Regulation 14g, the umpire, subject to the approval of the referee, may decide when new balls are required to ensure fairness of playing conditions. In matches where there is no umpire, the players should agree beforehand on this matter.

RULE 4

Server and Receiver

The players shall stand on opposite sides of the net; the player who first delivers the ball shall be called the server, and the other the receiver.

Case 1. Does a player, attempting a stroke, lose the point if he crosses an imaginary line in the extension of the net, (a) before striking the ball, (b) after striking the ball?

Decision. He does not lose the point in either case by crossing the imaginary line, provided he does not enter the lines bounding his opponent's court (Rule 18e). In regard to hindrance, his opponent may ask for the decision of the umpire under Rules 19 and 23.

Case 2. The server claims that the receiver must stand within the lines bounding his court. Is this necessary?

Decision. No. The receiver may stand wherever he pleases on his side of the net.

RULE 5

Choice of Sides and Service

The choice of sides and the right to be server or receiver in the first game shall be decided by toss. The player winning the toss may choose or require his opponent to choose—

- (a) The right to be server or receiver, in which case the other player shall choose the side; or
- (b) The side, in which case the other player shall choose the right to be server or receiver.

RULE 6

Delivery of Service

The service shall be delivered in the following manner: immediately before commencing to serve, the server shall stand with both feet at rest behind (i.e., farther from the net than) the base line, and within imaginary continuation of the center mark and side line. The server shall then project the ball by hand into the air in any direction and before it hits the ground, strike it with his racket; the delivery shall be deemed to have been completed at the moment of the impact of the racket and the ball. A player with the use of only one arm may utilize his racket for the projection.

Case 1. May the server in a singles game take his stand behind the portion of the base line between the side lines of the singles court and the doubles court?

Decision. No.

Case 2. If a player, when serving, throws up two or more balls instead of one, does he lose that service?

Decision. No. A let should be called, but if the umpire regards the action as deliberate, he may take action under Rule 19.

Case 3. If a ball in play becomes broken, should a let be called?

Decision. Yes.

Case 4. May a player serve underhand?

Decision. Yes. There is no restriction regarding the kind of service which may be used; that is, the player may use an underhand or an overhand service at his discretion.

RULE 7

Foot Fault

The server shall throughout the delivery of the service—

- (a) Not change his position by walking or running.
- (b) Not touch, with either foot, any area other than that behind the base line with the imaginary extension of the center mark and side line.

Note: The following interpretation of Rule 7 was approved by the International Federation on July 9, 1958:

- (a) The server shall not, by slight movements of the feet which do not materially affect the location originally taken up by him, be deemed "to change his position by walking or running."
- (b) The word "foot" means the extremity of the leg below the ankle.

RULE 8

From Alternate Courts

- (a) In delivering the service, the server shall stand alternately behind the right and left courts, beginning from the right in every game. If service from a wrong half of the court occurs and is undetected, all play resulting from such wrong service or services shall stand, but the inaccuracy of the station shall be corrected immediately upon discovery.
- (b) The ball served shall pass over the net and hit the ground within the service court which is diagonally opposite, or upon any line bounding such court, before the receiver returns it.

Explanation of Rule 8

In the absence of a linesman and umpire, it is customary for the receiver to determine whether the service is good or not.

RULE 9

Faults

The service is a fault—(a) if the server commits any breach of Rules 6, 7, or 8; (b) if he misses the ball in attempting to strike it; (c) if the ball served touches a permanent fixture (other than the net, straps, or band) before it hits the ground.

Case 1. After throwing the ball up preparatory to serving, the server decides not to strike at it and catches it instead. Is it a fault?

Decision. No.

Case 2. In serving in a singles game played on a doubles court with doubles and singles net posts, the ball hits a singles post and then hits the ground within the lines of the correct service court. Is this a fault or a let?

Decision. In serving it is a fault because the singles post, the doubles post, and that portion of the net, strap, or band between them are permanent fixtures. (Rules 2 and 9, and note to Rule 22).

RULE 10

Service After a Fault

After a fault (if it is the first fault), the server shall serve again from behind the same half of the court from which he served that fault, unless the service was from the wrong half, when, in accordance with Rule 8, the server shall be entitled to one service only from behind the other half. A fault may not be claimed after the next service has been delivered.

Case 1. A player serves from a wrong court. He loses the point and then claims it was a fault because of his wrong station.

Decision. The point stands as played and the next service should be from the correct station according to the score.

Case 2. The point score being 15-all, the server, by mistake, serves from the left court. He wins the point. He then serves again from the right-hand court, delivering a fault. The mistake in station is then discovered. Is he entitled to the previous point? From which court should he next serve?

Decision. The previous point stands. The next service should be from the left court, the score being 30-15, and the server has served one fault.

RULE 11

Receiver Must Be Ready

The server shall not serve until the receiver is ready. If the latter attempts to return the service, he shall be deemed ready. If, however, the receiver signifies that he is not ready, he may not claim a fault because the ball does not hit the ground within the limits fixed for the service.

Explanation of Rule 11

The server must wait until the receiver is ready for the second service as well as the first, and if the receiver claims to be not ready

and does not make any effort to return a service, the server may not claim the point, even though the service was good.

RULE 12

A Let

In all cases where a let has to be called under the rules, or to provide for an interruption to play, it shall have the following interpretation:

- (a) When called solely in respect of a service, that one service only shall be replayed.
- (b) When called under any other circumstances, point shall be replayed.

Case 1. A service is interrupted by some cause outside those defined in Rule 13. Should the service only be replayed?

Decision. No, the whole point must be replayed.

Case 2. If a ball in play becomes broken, should a let be called?

Decision. Yes.

RULE 13

The service is a let —

- (a) If the ball served touches the net, strap, or band, and is otherwise good, or, after touching the net, strap, or band, touches the receiver or anything which he wears or carries before hitting the ground.
- (b) If a service or a fault is delivered when the receiver is not ready (see Rule 11). In case of a let, that particular service shall not count, and the server shall serve again, but a service let does not annul a previous fault.

RULE 14

When Receiver Becomes Server

At the end of the first game, the receiver shall become server, and the server receiver; and so on alternately in all the subsequent games of a match. If a player serves out of turn, the player who ought to have served shall serve as soon as the mistake is discovered, but all points scored before such discovery shall be reckoned. If a game shall have been completed before such discovery, the order of service remains as altered. A fault served before such discovery shall not be reckoned.

RULE 15

Ball in Play till Point Decided

A ball is in play from the moment at which it is delivered in service. Unless a fault or a let is called, it remains in play until the point is decided.

Case 1. A ball is played into the net; the player on the other side, thinking that the ball is coming over, strikes at it and hits the net. Who loses the point?
Decision. If a player touches the net while the ball is still in play, he loses the point.

RULE 16

Server Wins Point

The server wins the point—

- (a) If the ball served, not being a let under Rule 13, touches the receiver or anything which he wears or carries before it hits the ground;
- (b) If the receiver otherwise loses the point as provided by Rule 18.

RULE 17

Receiver Wins Point

The receiver wins the point—

- (a) If the server serves two consecutive faults;
- (b) If the server otherwise loses the point as provided by Rule 18.

RULE 18

Where Player Loses Point

A player loses the point—

- (a) If he fails, before the ball in play has hit the ground twice consecutively, to return it directly over the net (except as provided in Rule 22a or c); or
- (b) If he returns the ball in play so that it hits the ground, a permanent fixture, or other object, outside any of the lines which bound his opponent's court (except as provided in Rule 22a and c); or
- (c) If he volleys the ball and fails to make a good return even when standing outside the court; or
- (d) If he touches or strikes the ball in play with his racket more than once in making a stroke; or
- (e) If he or his racket (in his hand or otherwise) or anything which he wears or carries touches the net, posts, or metal cable, strap, or band, or the ground within his opponent's court at any time while the ball is in play; or
- (f) If he volleys the ball before it has passed the net; or
- (g) If the ball in play touches him or anything that he wears or carries except his racket in his hands or hands; or
- (h) If he throws his racket at and hits the ball.

Case 1. In delivering a first service which falls outside the proper court, the server's racket slips out of his hand and flies into the net. Does he lose the point?

Decision. If his racket touches the net while the ball is in play, the server loses the point (Rule 18e).

Case 2. In serving, the racket flies from the server's hand and touches the net before the ball has touched the ground. Is this a fault, or does the player lose the point?

Decision. The server loses the point because his racket touches the net while the ball is in play (Rule 18e).

Case 3. A and B are playing against C and D. A is serving to D. C touches the net before the ball touches the ground. A fault is then called because the service falls outside the service court. Do C and D lose the point?

Decision. The call "fault" is an erroneous one. C and D have already lost the point before "fault" could be called, because C touched the net while the ball was in play (Rule 18e).

Case 4. May a player jump over the net into his opponent's court while the ball is in play and not suffer penalty?

Decision. No; he loses the point (Rule 18e).

Case 5. A cuts the ball just over the net and it returns to A's side. B, unable to reach the ball, throws his racket and hits the ball. Both racket and ball fall over the net on A's court. A returns the ball outside of B's court. Does B win or lose the point?

Decision. B loses the point (Rule 18e and h).

Case 6. A player standing outside the service court is struck by the service ball before it has touched the ground. Does he win or lose the point?

Decision. The player struck loses the point (Rule 18g), except as provided under Rule 13a.

Case 7. A player standing outside the court volleys the ball or catches it in his hand and claims the point because the ball was certainly going out of court.

Decision. In no circumstances can he claim the point:

- (1) If he catches the ball, he loses the point under Rule 18g.
- (2) If he volleys it and makes a bad return, he loses the point under Rule 18c.
- (3) If he volleys it and makes a good return, the rally continues.

RULE 19

Player Hinders Opponent

If a player commits any act either deliberate or involuntary which, in the opinion of the umpire, hinders his opponent in making a stroke, the umpire shall in the first case award the point to the opponent, and in the second case order the point to be replayed.

Case 1. Is a player liable to a penalty if in making a stroke he touches his opponent?

Decision. No, unless the umpire deems it necessary to take action under Rule 19.

Case 2. When a ball bounds back over the net, the player concerned may reach over the net in order to play the ball. What is the ruling if the player is hindered from doing this by his opponent?

Decision. In accordance with Rule 19, the umpire may either award the point to the player hindered, or order the point to be replayed (see also Rule 23).

RULE 20

Ball Falling on Line — Good

A ball falling on a line is regarded as falling in the court bounded by that line.

RULE 21

Ball Touching Permanent Fixtures

If the ball in play touches a permanent fixture (other than the net, posts, cord or metal cable, strap, or band) after it has hit the ground, the player who struck it wins the point; if before it hits the ground, his opponent wins the point.

Case 1. A return hits the umpire or his chair or stand. The player claims that the ball was going into the court.

Decision. He loses the point.

RULE 22

Good Return

It is a good return—

- (a) If the ball touches the net, posts, cord or metal cable, strap, or band, provided that it passes over any of them and hits the ground within the court; or
- (b) If the ball, served or returned, hits the ground within the proper court and rebounds or is blown back over the net, and the player whose turn it is to strike reaches over the net and plays the ball, provided that neither he nor any part of his clothes or racket touch the net, posts, cord or metal cable, strap, or band or the ground within his opponent's court, and that the stroke is otherwise good; or
- (c) If the ball is returned outside the post, either above or below the level of the top of the net, even though it touches the post, provided that it hits the ground within the proper court; or
- (d) If a player's racket passes over the net after he has returned the ball, provided the ball passes the net being played and is properly returned; or
- (e) If a player succeeds in returning the ball, served or in play, which strikes a ball lying in the court.

Note: If in a singles match, for the sake of convenience, a doubles court is equipped with singles posts for the purpose of a singles

game, then the doubles posts and those portions of the net, cord or metal cable, and band outside such singles posts shall at all times be permanent fixtures, and are not regarded as posts or parts of the net of a singles game.

A return that passes under the net cord between the singles and adjacent doubles posts without touching either net cord, net, or doubles posts and falls within the area of play, is a good return.

Case 1. A ball going out of court hits a net post and falls within the lines of the opponent's court. Is the stroke good?

Decision. If a service, no, under Rule 9c. If other than a service, yes, under Rule 22a.

Case 2. Is it a good return if a player returns the ball holding his racket in both hands?

Decision. Yes.

Case 3. The service, or ball in play, strikes a ball lying in the court. Is the point won or lost thereby?

Decision. No. Play must continue. If it is not clear to the umpire that the right ball is returned, a let should be called.

Case 4. May a player use more than one racket at any time during play?

Decision. No, the whole implication of the rules is singular.

Case 5. May a player request that a ball or balls lying in his opponent's court be removed?

Decision. Yes, but not while the ball is in play.

RULE 23

Interference

In case a player is hindered in making a stroke by anything not within his control, except a permanent fixture of the court or except as provided for in Rule 19, the point shall be replayed.

Case 1. A spectator gets into the way of a player who fails to return the ball. May the player then claim a let?

Decision. Yes, if in the umpire's opinion he was obstructed by a circumstance beyond his control, but not if due to permanent fixtures of the court or the arrangement of the ground.

Case 2. A player is interfered with as in Case 1, and the umpire calls a let. The server had previously served a fault. Has he the right to two services?

Decision. Yes; as the ball is in play, the point, not merely the stroke, must be replayed as the rule provides.

Case 3. May a player claim a let under Rule 23 because he thought his opponent was being hindered, and consequently did not expect the ball to be returned?

Decision. No.

Case 4. Is a stroke good when a ball in play hits another ball in the air?

Decision. A let should be called unless the other ball is in the air by the act of one of the players, in which case the umpire will decide under Rule 19.

Case 5. If an umpire or other judge erroneously calls "fault" or "out," and then corrects himself and calls "play," which of the calls should prevail?

Decision. A let must be called, unless, in the opinion of the umpire, neither player was hindered in his game, in which case the corrected call shall prevail.

Case 5. If an umpire or other judge erroneously calls "fault" or "out," and then corrects himself and calls "play", which of the calls should prevail?

Decision. A let must be called, unless, in the opinion of the umpire, neither player was hindered in his game, in which case the corrected call shall prevail.

Case 6. If the first ball served—a fault—rebounds, interfering with the receiver at the time of the second service, may the receiver claim a let?

Decision. Yes. But if he had an opportunity to remove the ball from the court and negligently failed to do so, he may not claim a let.

Case 7. Is it a good stroke if the ball touches a stationary or moving object on the court?

Decision. It is a good stroke unless the stationary object came into the court after the ball was put into play, in which case a "let" must be called. If the ball in play strikes an object moving along or above the surface of the court, a "let" must be called.

Case 8. What is the ruling if the first service is a fault, the second service correct, and it becomes necessary to call a let either under the provision of Rule 23 or if the umpire is unable to decide the point?

Decision. The fault shall be annulled and the whole point replayed.

RULE 24

The Game

If a player wins his first point, the score is called 15 for that player; on winning his second point, the score is called 30 for that player; on winning his third point, the score is called 40 for that player; and the fourth point won by a player is scored game for that player, except as follows:

If both players have won three points, the score is called deuce; and the next point won by a player is called advantage for that player. If the same player wins the next point, he wins the game; if the other player wins the next point, the score is again called deuce; and so on, until a player wins the two points immediately following the score at deuce, when the game is scored for that player.

RULE 25

The Set

A player (or players) who first wins six games wins a set, except that he must win by a margin of at least two games over his opponent; where necessary, a set shall be extended until this margin is achieved.

RULE 26

When Players Change Sides

The players shall change sides at the end of the first, third, and every subsequent alternate game of each set, and at the end of each set, unless the total number of games in such set is even, in which case the change is not made until the end of the first game of the next set.

RULE 27

Maximum Number of Sets

Maximum number of sets in a match shall be five, or, where women take part, three.

RULE 28

Rules Apply to Both Sexes

Except where otherwise stated, every reference in these rules to the masculine includes the feminine gender.

RULE 29

Decisions of Umpire and Referee

In matches where an umpire is appointed, his decision shall be final; but where a referee is appointed, an appeal shall lie to him from the decision of an umpire on a question of law, and in all such cases the decision of the referee shall be final.

The referee, at his discretion, may at any time postpone a match on account of darkness or the condition of the ground or the weather. In any case of postponement, the previous score and the previous occupancy of courts shall hold good, unless the referee and the players unanimously agree otherwise.

RULE 30

Play shall be continuous from the first service till the match is concluded, provided that after the third set or, when women take part, the second set, either player is entitled to a rest which shall not exceed ten minutes, or in countries situated between latitude 15° north and latitude 15° south, 45 minutes, and provided further that when necessitated by circumstances not within the control of the players, the umpire may suspend play for such a period as he may consider necessary. If play is suspended and is not resumed until a later day, the rest may be taken only after the third set (or when

women take part, the set) of play on such later day, completion of an unfinished set being counted as one set. These provisions shall be strictly construed, and play shall never be suspended, delayed, or interfered with for the purpose of enabling a player to recover his strength or his wind, or to receive instruction or advice. The umpire shall be the sole judge of such suspension, delay or interference, and after giving due warning, he may disqualify the offender.

Note: (a) Any nation is at liberty to modify the first provision of Rule 30, or omit it from its regulations governing tournaments, matches, or competitions held in its own country, other than the International Lawn Tennis Championships (Davis Cup and Federation Cup).

(b) When changing sides a maximum of one minute shall elapse from the cessation of the previous game to the time players are ready to begin the next game.

Explanation of Rule 30

In men's events, there is no rest in a two-out-of-three set match, but in a three-out-of-five-set match, a ten minute rest may be taken only after the third set. It may not be taken before the third set or at any time after the fourth set has been started. It must be taken after the third set or not at all.

In women's matches a rest of ten minutes may be taken after the second set or not at all.

All matches for Juniors shall be the best two-out-of-three sets with no rest. In the case of tennis center championships or interscholastic, state, and sectional tournaments, equivalent to tennis centers, and in National Junior Championships, the final round shall be the best three-out-of-five sets. If such final round requires more than three sets to decide, there must be a rest of ten minutes after the third set.

Matches for boys and girls 15 and under shall be the best two-out-of-three sets, and there must be a ten minute rest after the second set.

The United States Lawn Tennis Association has approved a modification of the first provision in Rule 30 to provide that after the second set in tournaments exclusively for seniors and in tournaments for fathers and sons, either player or doubles team is entitled to a rest which shall not exceed ten minutes.

The players must be back on the court ten minutes after play has ceased.

Should a player, on account of physical unfitness or an unavoidable accident not within his control, be unable to continue play, he must be defaulted.

"Stalling" is one of the hardest things to deal with. The rules say that "play shall be continuous." An umpire should determine whether the "stalling" is deliberate and for the purpose of gaining time. If he decides that it is, he should warn the player to stop his unfair practice; if this does not end it, he should then default him.

The umpire has the power to suspend a match for such period as he may think necessary, if, in his judgment, the play is interfered with by circumstances beyond the players' control. Such circumstances might be the passing of an airplane, moving of spectators in the stands, etc.

Case 1. A player's clothing, footwear, or equipment becomes out of adjustment in such a way that it is impossible or undesirable for him to play on. May play be suspended while the maladjustment is rectified?

Decision. If this occurs in circumstances not within the control of the player, of which circumstances the umpire is the sole judge, a suspension may be allowed.

Case 2. If, owing to an accident, a player is unable to continue immediately, is there any limit to the time during which play may be suspended?

Decision. No allowance may be made for natural loss of physical condition. Consideration may be given by the umpire for accidental loss of physical ability or condition.

Case 3. During a doubles game, may one of the partners leave the court while the ball is in play?

Decision. Yes, so long as the umpire is satisfied that play is continuous within the meaning of the rules, and that there is no conflict with Rules 33 and 34.

THE DOUBLES GAME

RULE 31

The above rules shall apply to the doubles game except as below.

RULE 32

Dimensions of Court

For the doubles game, the court shall be 36 feet in width, i.e., 4½ feet wider on each side than the court for the singles game, and those portions of the singles side lines which lie between the two service lines shall be called the service side lines. In other respects, the court shall be similar to that described in Rule 1, but the portions of the singles side lines between the base line and the service line on each side of the net may be omitted if desired.

Case 1. In doubles, the server claims the right to stand at the corner of the court as marked by the doubles side line. Is the foregoing correct or is it

necessary that the server stand within the limits of the center mark and the single side line?

Decision. The server has the right to stand anywhere between the center mark and the doubles side line.

RULE 33

Order of Service

The order of serving shall be decided at the beginning of each set as follows:

The pair who have to serve in the first game of each set shall decide which partner shall do so, and the opposing pair shall decide similarly for the second game. The partner of the player who served in the first game shall serve in the third; the partner of the player who served in the second game shall serve in the fourth, and so on in the same order in all subsequent games of a set.

Case 1. In doubles, one player does not appear in time to play, and his partner claims to be allowed to play single-handed against the opposing players. May he do so?

Decision. No.

RULE 34

Order of Receiving

The order of receiving the service shall be decided at the beginning of each set as follows:

The pair who have to receive the service in the first game shall decide which partner shall receive in the first service, and that partner shall continue to receive the first service in every odd game throughout that set. The opposing pair shall likewise decide which partner shall receive the first service the second game and that partner shall continue to receive the first service in every even game throughout that set. Partners shall receive the service alternately throughout each game.

Explanation of Rule 34

The receiving formation of a doubles team may not be changed during a set, only at the start of a new set. Partners must receive throughout each set on the same sides of the court which they originally select when the set begins. The first server is not required to receive in the right court; he may select either side, but must hold this to the end of the set.

Case 1. Is it allowable in doubles for the server's partner to stand in a position that obstructs the view of the receiver?

Decision. Yes. The server's partner may take any position on his side of the net in or out of the court that he wishes.

RULE 35

Service Out of Turn

If a partner serves out of his turn, the partner who ought to have served shall serve as soon as the mistake is discovered, but all points scored, and any fault served before such discovery, shall be reckoned. If a game shall have been completed before such discovery, the order of service remains as altered.

RULE 36

Error in Order of Receiving

If during a game the order of receiving the service is changed by the receivers, it shall remain as altered until the end of the game in which the mistake is discovered, but the partners shall resume their original order of receiving in the next game of that set in which they are receivers of the service.

RULE 37

Ball Touching Server's Partner Is a Fault

The service is a fault as provided for by Rule 9, or if the ball served touches the server's partner or anything he wears or carries; but if the ball served touches the partner of the receiver or anything which he wears or carries not being a let under Rule 13a, before it hits the ground, the server wins the point.

RULE 38

Ball Struck Alternately

The ball shall be struck alternately by one or the other player of the opposing pairs, and if a player touches the ball in play with his racket in contravention of this rule, his opponents win the point.

CONDITIONS GOVERNING TENNIS PLAYERS

Section 1

The following categories of tennis players are recognized as within the jurisdiction of the USLTA.

- (a) Amateurs
- (b) Players

Section 2

Any tennis player is an amateur who does not receive and has not received, directly or indirectly, pecuniary advance by the playing, teaching, demonstrating or pursuit of the game, except as expressly permitted by the USLTA.

An amateur will not be deemed to have received pecuniary advantage by reason of:

- (1) being reimbursed for reasonable expenses actually incurred by him in connection with his participation in a tournament, match or exhibition, or
- (2) being the recipient of a scholarship or other benefits authorized by his school (high school, college or university) which do not affect his eligibility as a tennis player for such school.

Section 3

Any tennis player who is still eligible to play in any age category under 19 years of age will be permitted to participate in a tournament, match or exhibition only if he is in good standing under amateur regulations.

Section 4

All other tennis players who accept the authority of, and who are in good standing with the USLTA shall be designated as players.

Section 5

Both amateurs and players shall play only in tournaments, matches or exhibitions which are sanctioned or approved by the USLTA, and both amateurs and players may compete in all such sanctioned or approved tournaments, matches or exhibitions; provided, that players may not participate in tournaments, matches, or exhibitions expressly limited to amateurs.

Section 6

An amateur is prohibited from and will forfeit his amateur status by engaging in any of the following:

- (a) Participation in an unauthorized competition;
- (b) Playing for a money prize or gate receipts;
- (c) Playing, coaching, instructing or demonstrating the game (except as authorized in Section 8 and 9 of this Article);
- (d) Accepting money or gaining pecuniary advantage from permitting his name or likeness to be advertized as the user of any goods of a manufacturer, merchant, wholesaler, retailer or otherwise;
- (e) Permitting the taking of action film of himself and receiving remuneration therefor;
- (f) Allowing his name to be used as the author of any book or article on tennis if he is in fact not the author or by receiving payment or consideration for services which he does not actually render;
- (g) Allowing the use of his name or likeness on sporting goods or in any advertising or other sales promotion of such goods;
- (h) Reporting or commenting in the press, radio or TV for money or for any consideration, any tournament, match or exhibition in which he is then participating;
- (i) Playing in any tournament, match or exhibition where admission is charged, or for which expenses are paid, unless such event has been sanctioned or approved by the USLTA;
- (j) Making any financial arrangement directly with a foreign national association, area or club without the consent of the USLTA;
- (k) Entering two or more tournaments, matches or exhibitions scheduled to be played at the same time, or by committing orally or in writing to play and failing to appear; or
- (l) Acting in a manner detrimental to the welfare of the game.

Section 7

- (a) An amateur may enter into a bona fide arrangement for his services (as an employee, an agent, or a consultant) with a manufacturer or seller of sporting goods or other products, provided the services to be performed will not violate any of these regulations. Upon the written request of the Rules and Discipline Committee of the USLTA or the Executive or Administrative Committee of the USLTA, an amateur shall fully inform such Committee of the details of any such arrangement, including the furnishing to such Committee of any written agreement, correspondence, and memoranda relating thereto, and including a sworn statement as to such details if so requested.
- (b) Upon the written request of the Rules and Discipline Committee of the USLTA or the Executive or Administrative Committee of the USLTA, an amateur shall fully inform such Committee as to all expenses paid in connection with his participa-

tion in any tournament, match or exhibition including the furnishing to such Committee of such additional information as may be requested, and including a sworn statement as to such expenses if so requested.

(c) Failure to comply promptly and fully with paragraphs (a) and (b) above will be grounds for immediate suspension, which suspension shall continue until the amateur has so complied with such request.

Section 8

An undergraduate or a graduate student in regular full-time attendance at a recognized high school, college or university, or a faculty member as described in Section 9 below, will not lose amateur status because of accepting employment as:

- (a) A counselor at a summer camp, or
- (b) an assistant to a teaching professional or
- (c) an employee or tennis instructor at a club or establishment where tennis is played, or
- (d) an employee or tennis instructor of a Sectional or District association of the USLTA, a city recreation department or its equivalent, or a recognized tennis patrons organization, or
- (e) employment in a public junior development program.

Remuneration for any such employment may only be on a fixed weekly or monthly basis and may not be on a lesson or hourly basis. This section is not applicable to an amateur who is ranked nationally in the first twenty.

Section 9

Regular full-time members of the faculty of a recognized high school, college or university may teach tennis to the pupils or coach the tennis team as part of their faculty assignments, without affecting their amateur standing.

Section 10

(a) Whenever charges are made against a person of a violation of any amateur regulation and are filed in writing with the Rules and Discipline Committee, the chairman of such Committee and the president, acting jointly, are empowered to suspend such person pending a hearing before such Committee and the president, or pending a hearing before the president, or the chairman of such Committee, or any other member of such Committee who may be designated by the chairman to conduct such hearing, which hearing shall be held promptly following the filing of such charges.

(b) Following any such suspension and hearing, a written report and recommendation shall promptly be submitted to the

Executive Committee of the USLTA, which Committee need not conduct a further hearing before finally acting on the matter. Such final action may be a removal of such suspension, or a continuation of such suspension for a specified period of time, or a disqualification of such person as an amateur. Any such action must have the concurrence of a majority of the members of the Executive Committee of the USLTA.

(c) Any person who has been disqualified by the Executive Committee of the USLTA may be reinstated by such Committee on evidence satisfactory to it that reinstatement is merited.

Section 11

Wherever used herein,

(a) the masculine pronoun shall be changed to the feminine when the person involved is of the feminine sex;

(b) a person's name includes his initials and any other identification of his identity; and

(c) teaching includes coaching and instructing.

USLTA TOURNAMENT REGULATIONS

1. The Tournament Regulations hereinafter contained and the Rules of Lawn Tennis shall be observed throughout all tournaments held by clubs or associations belonging directly or indirectly to the United States Lawn Tennis Association.

2. No checks or cash payments in any form shall be given as prizes. The value of a prize shall not be advertised. If any challenge cup is offered, it shall be deeded to the USLTA or to the sectional association having jurisdiction of the event for which such cup is donated. The winner of a challenge cup shall be entitled to possession of the cup until one month previous to the next competition for the cup, provided he give bond satisfactory to the club. Should the club give possession without such bond, it shall be liable to the USLTA or sectional association for the value of the cup. Any challenge cups except those deeded to the USLTA for USLTA championships, USLTA and international team matches shall, upon request by resolution of the sectional association having jurisdiction of the event for which such cup was donated, be deeded to such sectional association.

3. The officers of the club holding a tournament shall have full power over all details concerning the tournament. They may themselves act as the tournament committee and will be so regarded unless they delegate their authority to others. Only an amateur may hold an official position such as referee or chairman of a committee that is responsible to the USLTA for the proper conduct of a USLTA or sectional championship.

4. A circular shall be issued by the committee specifying the conditions of competition, and including the names of the committee and of the referee.

5. The committee shall elect a referee, with power to appoint a substitute. The referee or his substitute must be present at all times when play is in progress.

Explanation. The referee may not umpire or participate in a match unless he appoints a substitute to act as referee while he is umpiring or playing.

6. The referee shall during the tournament be ex officio a member of the committee.

7. The committee shall keep order on the grounds, and shall decide any question arising out of the competition, except a point of law, if summoned for that purpose by the referee or by any two of their number; and they shall have power, when so convened, if the

misconduct of a competitor be reported to them by a member of the committee or by an umpire, to disqualify the offender after a hearing. The members of the committee present on the grounds shall constitute a quorum.

8. The referee or his substitute shall have power to appoint and remove umpires and linesmen, to assign courts, and to start matches. The referee shall decide any point of law which an umpire may be unable to decide, or which may be referred to him on appeal from the decision of an umpire; such decision shall be final unless reversed by the USLTA Executive Committee.

In order to affect the scoring of a match, an appeal must be taken to the referee immediately and play suspended pending the decision, which the referee shall make forthwith. In general, a reversal of the referee's decision by the Executive Committee shall not cause a reopening of the match involved, which shall stand as played, but such reversal shall constitute a precedent for future decisions. However, when the decision concerns the final match of a tournament, and the interests of justice so require, the Executive Committee may in its discretion award the match to the aggrieved party or order it replayed.

9. The decision of an umpire shall be final upon every question of fact, and no competitor may appeal from it; but if an umpire is in doubt as to a point of law, or if a competitor appeals from his decision, the umpire shall submit the question to the referee, whose decision shall be final, unless reversed by the USLTA Executive Committee. A question of fact relates to events that actually occurred. A question of law is the construction and application of the rules of the game to the admitted facts.

10. The referee may, whether appealed to by any competitor or not, postpone the meeting, or any match or part of a match, if in his opinion the state of the weather, or of the light, or of the condition of the ground, or other circumstances, renders it advisable to do so.

11. In all tournaments and matches sanctioned by the USLTA, the use of spikes is prohibited unless the referee shall determine that ground conditions justify their use. The use of spikes longer than 3/8 of an inch is prohibited under any circumstances. In all such tournaments or matches played on any surface other than grass, heelless flat-soled shoes must be worn. Shoes having heels may not be worn on any playing surface.

12. If a competitor is not ready when called upon to play and has not been excused, he may be defaulted. If, after play begins, a player fails to continue as required by the rules, through illness or other cause, his opponent shall be entitled to win, which shall be scored by recording the sets and games actually finished and adding the word "retired"; e.g., A defeated B, 3-6, 4-2, retired.

13. The referee shall not bet on any match, nor shall an umpire or linesman bet on the match to which he is assigned. An infraction of this rule shall be followed by the immediate removal of the offending referee, umpire, or linesman.

14. It is the duty of an umpire—

- (a) To ascertain that the net is the right height before the commencement of play, and to measure and adjust the net during play after each set and other times, if asked to do so, or if in his opinion its height has altered.
- (b) To call service faults, lets, outs, and foot faults unless such powers be delegated to linesmen or net umpire.

Explanation—In matches where there are no base linesmen the umpire shall judge foot faults, but should call only those that are perfectly obvious from his position in the chair.

- (c) To call the points when won, or when he is asked to call them, and to record them upon the scorecard.
- (d) To call the games and the sets at the end of each, or when asked to call them, and to record them on the scorecard. At the end of each game, the games should be called with the name of the player who is in advance, thus: "One game to nothing; A leads," or "two games to one; B leads." If the games are even, the score should be called thus: "Three games all," or as the case may be. At the end of each set, the sets should be called in like manner.
- (e) To direct the competitors to change sides, in accordance with Rule 25.
- (f) When appealed to during a rally, whether or not a doubtful ball is "in play," say nothing; an appeal should not be made, as the ball is presumed to be good until "out" or "fault" is called.

Case 1. A ball was driven to the base line of the opponent's court. The latter was in doubt whether it was good or not and called to the umpire for a decision, there being no linesman. The umpire, not being able to give an instant decision, said nothing. Play continued, and finally the player who asked for the decision knocked the ball out of court. The umpire had by that time confirmed his firm impression—that the disputed ball was out—and awarded the point to the player who had, in the course of the rally, knocked the ball out. Was the umpire right?

Decision. Yes.

Explanation—This differs from the old regulations which instructed the umpire to call "play"; he is now directed to say nothing.

- (g) To decide all doubtful or disputed strokes subject to the decision of the linesman, and all points of law, subject to an appeal to the referee; to decide when new balls are required, subject to the approval of the referee and to be

responsible for the proper conduct of the match, including its discontinuance, subject to the approval of the referee.

Explanation—The latter part of this regulation gives authority to the umpire to stop a match on account of light, ground, or weather conditions, subject to the referee's approval.

(h) To see that play is resumed promptly at the expiration of time allowed for rest.

Explanation—Players must return to the court ten minutes after stopping play.

(i) To sign the scorecard and to deliver it at the conclusion of the match to such person as the committee may authorize to receive it, provided that no omission of any of the foregoing duties on the part of an umpire shall of itself invalidate any point, game, or match.

15. It is the duty of the linesman to call faults, and to decide strokes relating to the line or lines to which he is assigned, and to said line or lines only, and such decision shall be final. Should the linesman be unable to give a decision, the umpire may call upon another linesman to do so whose position is such as to enable him to give a correct decision, or he may direct the stroke to be played again.

Case 1. The ball strikes the ground close to a line; the umpire scores the point against the player who last struck the ball. On appeal to the linesman, the latter decides that the ball was not out. The umpire must then order the point replayed.

Explanation—The USLTA Executive Committee has ruled that, in accordance with Rule 23, Case 5, a linesman has the power to correct a mistaken decision which he has made. By this is meant that when a linesman calls a ball "out" that he immediately realizes was good, he should instantly apprise the umpire of his error. The umpire then must order the point replayed unless in the opinion of the umpire neither player was hindered in his game, in which case the corrected call shall prevail.

16. A competitor may appeal to the referee for the removal of the umpire or any linesman of his match.

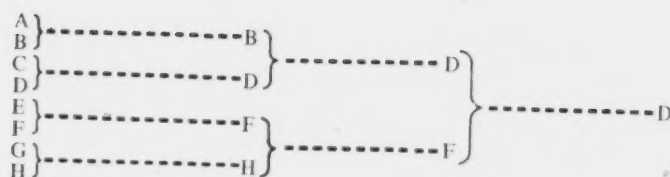
Explanation—The referee should give consideration to the reasons why the removal is requested and act only if they are well founded, not simply on a competitor's objection.

17. No competitor may transfer his entry to another player.

18. Competitors shall have the right, by themselves or their deputies, to be present at the draw.

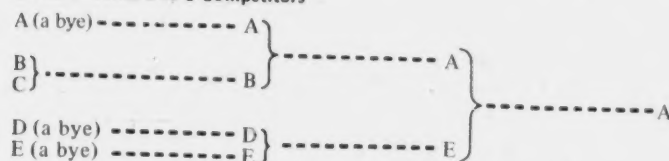
HOW TO MAKE THE DRAW

19. When the number of competitors is 4, 8, 16, 32, 64, 128, or any higher power of 2, they shall meet in pairs, in accordance with the system shown by the following diagram:



20. When the number of competitors is not a power of 2, there shall be byes in the first round. The purpose of having byes is to bring into the second round a number of competitors that is a power of 2. To determine the number of byes, subtract the number of competitors from the next higher power of 2; to determine the number of competitors in the first round, subtract the number of byes from the total number of competitors. If the byes are even in number, one-half of them shall be placed at the top of the draw and one-half at the bottom of the draw; if they are uneven in number, there shall be one more bye at the bottom than at the top. The byes in the top shall be the names first drawn. The next names drawn shall be placed in the first round. The byes in the bottom half are drawn last.

Series 1—From 5 to 8 Competitors



With 6 there will be 1 bye at the top and 1 bye at the bottom; with 7, 1 bye at the bottom; with 8, no byes.

RULES FOR SEEDING THE DRAW

1. All championships and other sanctioned tournaments shall have a seeded draw conducted in accordance with the following rules:
 - a. The committee in charge of a tournament shall have full power in making the draw.
 - b. The number of seeded players shall be determined by the committee, subject to the limitation that not more than one player be seeded for every eight entries.

2. If two are to be seeded, numbers 1 and 2 shall be drawn by lot; the first drawn shall be placed at the top of the upper half, the second at the bottom of the lower half.

If four are to be seeded, numbers 1 and 2 are treated as above. Numbers 3 and 4 shall be drawn by lot; and first drawn shall be placed at the top of the second quarter; the second shall be placed at the bottom of the third quarter.

If more than four are to be seeded, refer to the USLTA *Umpire's Manual*.

3. The names of all unseeded competitors shall be drawn at random and copied onto the drawsheet in the order drawn.

SANCTION RULES

1. Tournaments seeking USLTA sanction should apply to their sectional associations as early as possible.
2. A complete report of all matches played in the tournament must be furnished to the USLTA office containing full names and addresses of all contestants (where possible) within ten days after the completion of the event.
3. All players competing in a sanctioned tournament must have membership in the USLTA. The fee is \$4 for adults and \$1 for juniors. Application blanks are obtainable from sectional chairmen.

SUGGESTIONS FOR MODIFIED RULES

Many teachers have requested information regarding the kind of modifications that could be made for matches when time is a factor. Some possible suggestions are listed below. Although unofficial, these rules also appear in the 1969 Official USLTA Yearbook and Tennis Guide.

Rules of VASSS Single Point

VASSS is an alternate tennis scoring system which creates a game simpler to understand; schedule (set takes 30 minutes); and handicap (better than golf). It also abolishes the marathon set, by introducing the VASSS 9 point "tiebreak." All USLTA rules apply except in scoring.

1. It is scored as at table tennis—1, 2, 3, 4.
2. The serve changes from A to B every 5 pts. (5, 10, 15). This 5-point sequence is called a "Hand." Serve changes at the end of the set, but not side.

3. The first point in each "hand" is served into the right or forehand court.
4. Sides (N-S) are changed on the odd hand, 5 pts. (5-15-25).
5. The official set is fixed at 31 points. But where time is at a premium, 21 points may be used.
6. If there is no umpire the server is required to call score loud and clear after each point.
7. The winner of the set must lead by at least 2 points (31-29).
8. If the score is tied at 30-30 in points in the set, or 1-1 in sets in a 2-set match (see Rule 8), 5 out of 9 points are played to decide the winner. This is called the tiebreak.
9. In the tiebreak, the players spin the racket. The winner of the "spin" has choice of serving first, A (1, 2, 5, 6) or B, (3, 4, 7, 8, 9) or of taking choice of sides (North-South). Service (A & B) changes after 2 points (2, 4, 6). Sides (N-S) are changed after 4 points. B may choose to serve the 9th and final point either left or right. (Follow serving sequence on diagram.) The loser of the tiebreak shall commence serving in the following set without changing sides.
10. In doubles, the same player on team A will serve points 1 & 2, his partner 5 & 6. On team B, the same player serves points 3 & 4 and his partner, points 7, 8, & 9.
11. In regular play, a match may be either 2 sets or 4 sets with the 5 out of 9-point tiebreak to decide the winner if sets are divided, or the regular 2 out of 3, or 3 out of 5 set match formula may be used.

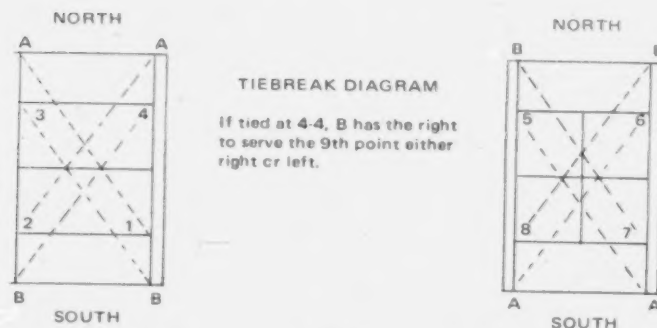


Figure 1

Handicap Rules

Play shall proceed as if the points of the handicap had actually been played. Examples:

(a) Handicap 2 points: Server commences serving point 3 into right or forehand court. Services and side both change after 3 points ($2+3=5$).

(b) Handicap 6 points: Server commences serving point 7 into the left or backhand court. Service changes after 4 points ($6+4=10$). Side shall change after 9 points ($6+9=15$).

The giver of the handicap shall have the choice of service and side in the opening set, choice of service only in subsequent sets. At the conclusion of each set players shall not change sides. (N-S). To estimate handicap points to be received at 30-30 in 9-point tiebreak, for 1-3 points there will be no points handicap, 4-7 points—1-point handicap, 8-14 points—2-point handicap, 15-21 points—3-point handicap, 22-30 points—4-point handicap.

In the 9-point tiebreak handicap points shall be considered as if already played. Examples: (a) 1-point handicap, A shall serve point 2 into the left or backhand court. (b) 2-point handicap, B shall serve point 3 into the right or forehand court. (See Diagram).

Rules of VASSS "No-Ad"

(All USLTA rules apply except in scoring)

1. The advantage point is eliminated in the game, and the advantage game in the set.
2. The first to win 4 points, 1, 2, 3, 4, (not 15, 30, 40), wins the game, the first to win 6 games wins the set. (See Rules 9, 10, and Tiebreak Diagram.) It must be emphasized that "no-ad" does not have the handicap advantage of "31 point."

VASSS Rules for Scoring Round Robin Medal Play (RRMP)

A "round" may be any multiple of 20 (40-60-80) total points or one 31-point set. If a 31-point set is used, the winner shall receive a 5-point bonus for the win, plus the unplayed points in the set; (e.g.: A wins 31-10, his score will be $31+5+20=56$ points).

Service and sides are changed as in 31-point. See Rules 2, 3, 4, 5. Individual handicaps are estimated against scratch for the number of points in a round as decided by the tournament committee.

Tournament Team handicap is the sum of the individual players' handicaps.

In case of a tie, see Rule 9 and 10, and follow Tiebreak Diagram.

"TIE-BREAK" PROCEDURES FOR TENNIS

**Authorized for 1971 USLTA Sanctioned Tournaments
at 6 Games All**

Permission for sanctioned tournaments to employ a "sudden-death" tie-breaking procedure is embodied in the unanimous passage by the USLTA Executive Committee September, 1970 of a resolution proposed by the Special Committee on Scoring and Playing Rules (a subcommittee of the Long Range Planning Committee).

The resolution outlined a specific procedure to be used—after 6-all— and said the procedure *may* be used, at the option of the tournament committee, either throughout the tournament or event or in a designated round or rounds, with such matches to be considered, for ranking purposes, as having equal merit with matches not utilizing the tie-breaking procedure. A basic provision is that reasonable notice shall be afforded competitors prior to the commencement of competition.

This departure from conventional scoring is permissive, *not* mandatory.

The specified (and only authorized) tie-break methods are 5-out-of-9 points and 7-out-of-12 points.

5 out of 9 Points

Singles: If it is Player A's turn to serve the 13th game (at 6-all) he shall serve Points 1 and 2, right court and left court; Player B then serves Points 3 and 4 (R and L). Players then change sides, and A serves Points 5 and 6; B serves Points 7 and 8. If the score reaches 4 points all, Player B serves Point 9 from the right or left court at the election of the receiver.

The set shall be recorded as 7 games to 6. The tie-break counts as one game in reckoning ball-changes.

Player B shall serve first in the set following the playing of the tie-break (thus assuring that he will be first server if this set also goes into a tie-break). The players shall "stay for one" after a tie-break.

If both the first two sets in a best-of-three set match or if either two or four sets in a best-of-five set match end in tie-break games, the players shall spin a racket at the start of the final set to establish service order and side.

(Umpires should note that, if this results in a change in serving sequence, the next ball change, if any, should be deferred one game to preserve the alternation of the right to serve first with new balls.)

Doubles: In Doubles the same format as in singles applies, provided that each player shall serve from the same end of the court

in the tie-break game that he has served from during that particular set. (The tie-break sequence shall count as one game for ball-change reckoning.)

7 out of 12 Points

Singles: Player A shall serve Points 1 and 2, right court and left court; Player B serves Points 3 and 4; A serves Points 5 and 6. The players then change sides; B serves Points 7 and 8; A serves Points 9 and 10; B serves Points 11 and 12. If either player wins 7 points, the set is recorded 7 games to 6. If the score of the tie-break game reaches 6 points all the players shall change sides and play shall continue with serve alternating on every point until one player establishes a margin of 2 points, as follows:

A serves the 13th point (right court), B serves Point 14 (right); A serves Point 15 (left); B serves Point 16 (left). If the score is still tied, the players change sides every 4 points and repeat this procedure.

Player B shall serve first in the set following the playing of the tie-break. The players shall "stay for one."

If both the first two sets in a best-of-three set match or if either two or four sets in a best-of-five set match end in tie-break games, the players shall spin a racket at the start of the final set to establish service order and side.

Doubles (A and B versus C and D): Assuming that Player D has served the 12th game to make the score 6 games all, the teams shall "stay" for the first 2 points of the tie-break, then change sides and change every 4 points thereafter during the first 12 points. A shall serve Points 1 and 2, right court and left court; change sides; C serves Points 3 and 4; B serves Points 5 and 6; change sides; D serves Points 7 and 8; A serves Points 9 and 10; change sides; C serves Points 11 and 12. If either team wins 7 points, the set is recorded 7 games to 6.

If the score of the tie-break game reaches 6 points all, B shall serve Point 13 from the right court; change sides; D serves Point 14 from the right court; A serves Point 15 from the left court; change sides; C serves Point 16 from the left court; B serves Point 17 from the right court; change sides, etc. etc.

Upon completion of the tie break game the teams shall "stay for one," and either C or D members of the team who served the last full game (before the tie-break) shall serve the first game of the next set.

If both the first two sets in a best-of-three set match or if either two or four sets in a best-of-five set match end in tie-break games, the players shall spin a racket at the start of the final set to establish service order and side.

The tie-break counts as one game in reckoning balance changes. The Special Committee in its resolution mentioned not only the need for "reasonable limitations" on the length of matches as a key condition of television sponsorship, but also "the interest and convenience of paying spectators, their desire to rely on the scheduling of matches involving different players, and their commitments elsewhere."

It also pointed out that even "local tournaments" generally involve evening play, with limited time available for match completion. It said use of this method would "not materially interfere with the strategical or mental outlook of the players, and retention of traditional scoring through 6-games-all assures reasonable testing of endurance and fitness without undue burden on spectators or television programming."

The "endless set," said the Committee, "is considered the most urgent of the playing rules problem areas, and one that might be solved with a minimum of departure from conventional scoring."

Officiating Services Area

OSA (Officiating Services Area)—This area, one of seven in the DGWS structure, is devoted to the training and rating of officials. Its Executive Board, which meets annually prior to the AAHPER national convention, is composed of:

1. A *chairman*, a *chairman-elect*, and a *past chairman*. The chairman-elect is elected in an open meeting at the national convention.
2. A *secretary*, who sends rating cards to boards and receives applications for new boards. She is elected by mail ballot in alternate years by the local boards of officials.
3. A *treasurer*, who is responsible for collecting board dues. She also is elected by mail ballot in alternate years by the local boards of officials.

P & T of O (Principles and Techniques of Officiating)—This committee is concerned with the methods used by referees, umpires, and judges to officiate games and matches. The P & T of O chairman is a member of and is selected by the Executive Board. A subcommittee in each sport is responsible for evaluating and revising the officiating techniques and for writing the Techniques of Officiating article published in its respective sports guide. Membership is by appointment. If you have questions concerning the techniques of officiating, write to the appropriate P & T of O chairman.

E & R (Examinations and Ratings)—There is an E & R committee for each of the nine sports in which ratings are given. Each chairman and her committee are responsible for preparing, revising, and analyzing the officiating theoretical examinations. The general chairman and an associate chairman (who is the E & R chairman-elect) coordinate the subcommittees and compile the general material for the sports packets. The chairman of E & R is an appointed member of the OSA Executive Board. If you need information regarding the study questions in the Guides or a question in the examination, write to the appropriate E & R chairman.

E & P (Editorial and Publications)—This committee is responsible for editing the OSA portion of the Guides. The chairman is appointed for a two-year term of office and is a member of the Executive Board.

DOC (District Officiating Coordinator)—There is one DOC in each of the six districts of AAHPER. She serves as liaison between the boards of officials in her district and the OSA Executive Board.

The DOC is elected at her AAHPER district convention and serves on the Executive Board.

Boards (Affiliated and Provisional Boards of Women Officials)—These boards are made up of organized groups of women throughout the United States who are authorized to give ratings. A listing of these boards follows.

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1972-1973**

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Chairmen of Standing Committees

Principles and Techniques of Officiating: PATRICIA DUNCAN, Ft. Hayes State College, Ft. Hayes, Kans. 67601 (1972-74)

Examinations and Ratings: CAROL SWIM, Bemidji State College, Bemidji, Minn. 56601 (1972-73)

Associate Chairman: JACKIE SHICK, Univ. of Minnesota, Minneapolis 55455

Editorial and Publications: MARY BELL, Northern Illinois Univ., DeKalb 60115 (1971-73)

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Northwest: JAN BOYUNGS, Central Washington State College, Ellensburg 98926 (1970-72)

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Patricia Laing, Pelham St. S., Fonthill, Ontario

Advisory

MARY E. REKSTAD, AAHPER Consultant, Division for Girls and Women's Sports, 1201 16th St., N.W., Washington, D.C. 20036

BETTY HARTMAN, *DGWS Vice President*, Kent State Univ., Kent, Ohio 44240
JANICE PEARCE, *Chairman, DGWS Sports Guides and Official Rules Committee*, Utah State Univ., Logan 84231
MARY W. FORD, Winthrop College, Rock Hill, S. C. 29730

PRINCIPLES AND TECHNIQUES OF OFFICIATING COMMITTEE

PATRICIA DUNCAN, *Chairman*, Ft. Hayes State College, Ft. Hayes, Kans. 67601
Badminton: JEAN PANKONIN, Illinois State Univ., Normal 61761
Basketball: SHIRLEY DUNCAN, 9313 Winbourne Rd., Burke, Va. 22015
Gymnastics: KITTY KJELDEN, Univ. of Massachusetts, Amherst 01003
Softball: ELSIE WULF, Franklin Township Junior High School, Wanamaker, Ind. 46239
Swimming: CAROL COOPER, Southern Illinois Univ., Carbondale 62901
Synchronized Swimming: MARY KAZLUSKY, Mt. Holyoke College, South Hadley, Mass. 01075
Tennis: ANNE PITTMAN, Arizona State Univ., Tempe 85281
Track and Field: BONNIE PARKHOUSE, Univ. of Minnesota, Minneapolis 55455
Volleyball: KAY CORCORAN, College of Mt. St. Joseph, Mt. St. Joseph, Ohio 45051

EXAMINATIONS AND RATINGS COMMITTEE

CAROL SWIM, *Chairman*, Bemidji State College, Bemidji, Minn. 56601
Softball: LORENE RAMSEY, Illinois Central College, Dirksen Hall, East Peoria 61611
Swimming: CAROL COOPER, Southern Illinois Univ., Carbondale 62901
Synchronized Swimming Co-chairmen: THERESA C. ANDERSON, 2109 Fortieth St., Des Moines, Iowa 50310, and JANET MOLDENHAUER, Wisconsin State Univ., Oshkosh 54901
Track and Field: KATHRYN RUSSELL, Univ. of Arizona, Tucson 85721
Volleyball: NANCY STUBBS, Univ. of Tennessee, Knoxville 37916
Associate: NANCY LAY, Univ. of Tennessee, Knoxville 37916
JACKIE SHICK, *Associate Chairman*, Univ. of Minnesota, Minneapolis 55455

Badminton: JEANETTE WIESER, Sam Houston State Univ., Huntsville, Texas 77340
Basketball: RITA SMITH, 9873 McBroom St., Sunland, Calif. 91040
Associate: FLORA BRUSSA, East Los Angeles College, Los Angeles 90022
Gymnastics: VARINA FRENCH, Rte. 1, Box 245, Forest Grove, Ore. 97116
Associate: HELEN TIMMERMANS, Univ. of South Carolina, Columbia 29208
Tennis: CLAUDIA GIACOMINI, Sequoia High School, Redwood City, Calif. 90263

TENNIS PRINCIPLES AND TECHNIQUES OF OFFICIATING COMMITTEE

ANNE PITTMAN, *Chairman*, Arizona State Univ., Tempe 85281.
 MARY LOU CRANE, 8413 E. Earll, Scottsdale, Ariz. 85251.
 CATHERINE WILKINSON, 92 W. Lynwood St., Phoenix, Ariz. 85003.

TENNIS EXAMINATIONS AND RATINGS COMMITTEE

CLAUDIA GIACOMINI, *Chairman* Sequoia High School, Redwood City, Calif. 90263.
 CAROL COLE, Capuchino High School, San Bruno, Calif. 94066.
 CATHERINE GREEN, Univ. of Washington, Seattle, Wash. 98122.
 ELEANOR HANSEN, Carleton College, Northfield, Minn. 55057.
 PHYLLIS HOROWITT, Wilson High School, Long Beach, Calif. 90801.
 CURLY NEAL, Stanford Univ., Stanford, Calif. 94305.

BADMINTON PRINCIPLES AND TECHNIQUES OF OFFICIATING COMMITTEE

JEAN PANKONIN, *Chairman*, Illinois State Univ., Normal 61761.
 MARTHA STEPHENS, Wisconsin State Univ., La Crosse 54601.
 MYRNA STEPHENS, Wisconsin State Univ., La Crosse 54601.

BADMINTON EXAMINATIONS AND RATINGS COMMITTEE

JEANETTE WIESER, *Chairman*, Sam Houston State Univ., Huntsville, Tex. 77340.
 BETTY ALEXANDER, Sam Houston State Univ., Huntsville, Tex. 77340
 MARTHA HAWTHORNE, Univ. of Houston 77340
 JUNE BURKE, Texas Univ., Austin 78712
 PAT SCHMITT, Del Mar College, Corpus Christi 78404
 ABBIE RUTLEDGE, Rustic Knolls, Hackettstown, N.J. 07840

AFFILIATED BOARDS OF OFFICIALS 1972-1973

Each board listed below offers ratings as indicated. Affiliated boards may have rated officials at each grade level from National official to intramural official. Provisional boards may have rated officials at the Associate and Intramural grade levels; they are indicated below by an asterisk (*). Upon request, the board chairman can supply a list of names, addresses, and telephone numbers of these officials.

Where it is indicated that the annual report was not received, the Examinations and Ratings chairman will not send the current examination packet to the board chairman until she receives this annual report.

For lists of board-given ratings, consult the appropriate *Guides*. The *Basketball Guide* lists all boards which give ratings in any sport.

CENTRAL DISTRICT

District Officiating Coordinator: Wanda Green,
Univ. of Northern Iowa,
Cedar Falls, Iowa 50613 (1972-74)

EASTERN DISTRICT

District Officiating Coordinator: Edith Cobane,
State Univ. of New York, Albany, N.Y. 12203 (1971-73).

MIDWEST DISTRICT

District Officiating Coordinator: Pat Roy,
812 Circle Tower, Indianapolis, Ind. 46204

ILLINOIS

Central Illinois Board of Women Officials

Chairman: Barbara Cothorn, Scarle Dr., Normal 61701.

Badminton Chairman: Vivian Kuszek, Illinois State Univ., Normal 61701.

Ratings given in badminton, basketball, gymnastics, softball, volleyball.

OHIO

Northwestern Ohio Bowling Green—Board of Women Officials

Chairman: Sue Hager, 131 State St., Bowling Green 43402.

Tennis Chairman: Agnes Hooley, Bowling Green Univ., Bowling Green 43403.
Ratings given in basketball, tennis, volleyball.

WEST VIRGINIA

Southeastern West Virginia Board of Women Officials

Chairman: Georgia Swan, 209-1/2 Vermillion, Athens 24712.
Badminton Chairman: Georgia Swan (same as above).
Ratings given in badminton, track & field, volleyball.

WISCONSIN

La Crosse Board of Women Officials

Chairman: Lee Stephenson, Wittich Hall, Wisconsin State Univ., La Crosse 54601.
Badminton Chairman: Lee Stephenson (same as above).
Ratings given in badminton, basketball, gymnastics, swimming, synchronized swimming, track & field, volleyball.

NORTHWEST DISTRICT

District Officiating Coordinator: Jan Boyungs, Central Washington, Ellensburg, Wash. 98926 (1970-73).

Elect: Jean Neely, Eastern Oregon College, La Grande, Ore. 97850 (1973-75).

OREGON

Northern Oregon Board of Women Officials

Chairman: Fran Gannon, Madison H.S., Portland 97207.
Tennis Chairman: JoAnne Kraft, 2744 N.E. 32nd Place, Portland 97207.
Ratings given in basketball, gymnastics, swimming, tennis, track & field, volleyball.

SOUTHERN DISTRICT

District Officiating Coordinator: Aileen Britton, Edward White Senior High School, Jacksonville, Fla. 33210 (1972-74).

ALABAMA

Auburn University Board of Women Officials

Chairman: Nanellen Lane, Memorial Coliseum, Auburn Univ., Auburn 36830.

Tennis Chairman: Nanellen Lane (same as above).
Ratings given in basketball, tennis, volleyball.

ARKANSAS

Arkansas Board of Women Officials

Chairman: Pat Gordon, Arkansas Polytechnic College, Russellville 72801.

Tennis Chairman: Betty Swift, State College of Arkansas, Conway 72032.
Ratings given in tennis, volleyball.

GEORGIA

Milledgeville Board of Women Officials

Chairman: Jean Osborne, Georgia College, Milledgeville 31061.

Chairman-elect: Jean Osborne (same as above).
Tennis Chairman: Jean Osborne (same as above).
Ratings given in tennis, volleyball.

MISSISSIPPI

North Mississippi Board of Women Officials

Chairman: Jill Upton, Mississippi State College for Women, Columbus 39701.

Tennis Chairman: Barbara Garrett, Mississippi State College for Women, Columbus 39701.

Ratings given in basketball, gymnastics, softball,* swimming, tennis, volleyball.

NORTH CAROLINA

West Central North Carolina Board of Women Officials

Chairman: Pat Hielscher, Univ. of North Carolina at Greensboro, Greensboro 27412.

Chairman-elect: Pat Hielscher (same as above).

Tennis Chairman: Dorothy Davis, Univ. of North Carolina at Greensboro, Greensboro 27212.

Ratings given in basketball, tennis, volleyball.

OKLAHOMA

Oklahoma Board of Women Officials

Chairman: Pat Wathen, Harding J.H., Oklahoma City 73118.

Chairman-elect:

Badminton Chairman: Berneice Waggoner, Central State College, Edmond 73034.

Tennis Chairman: June Treps, Central State College, Edmond 73034.

Ratings given in badminton, basketball, tennis, volleyball.

TEXAS

Central Texas Board of Women Officials

Chairman: Martha Artus, Women's Gym, Univ. of Texas, Austin 78712.

Badminton Chairman: Deanna Pommerenk, Univ. of Texas, Austin 78712.

Tennis Chairman: Dorothy Lovett, Univ. of Texas, Austin 78712.

Ratings given in badminton, basketball, swimming, tennis, volleyball.

Denton County Board of Women Officials

Chairman: Jean Pekara, North Texas State Univ., Denton 76203.

Chairman-elect: Betsy Tandy, Texas Women's Univ., Denton 76204.

Badminton Chairman: Virginia Hicks, Texas Women's Univ., Denton 76204.

Tennis Chairman: Katherine Magee, Texas Women's Univ., Denton 76204.

Ratings given in badminton, basketball, tennis, volleyball.

Houston Board of Women Officials

Chairman: Martha L. Sebern, 79 26th Pella Dr., Houston, Tex. 77036.

Tennis Chairman: Trudy King, 6810 Westover #17, Houston 77017.

Ratings given in swimming, tennis, volleyball.

Southeast Texas Board of Officials

Chairman: Jeanette Wilser, Sam Houston State Univ., Huntsville 77340.

Badminton Chairman: Jeanette Wilser (same as above).

Tennis Chairman: Jeanette Wilser (same as above).

Ratings given in badminton, basketball, tennis, volleyball.

Southern Texas Board of Women Officials

Chairman: Betty Jean Brewer, 4109 Allen Dr., Kingsville 78363.
Tennis Chairman: Billye Smith, 832 West Lee, Kingsville 78363.
Ratings given in basketball, tennis, volleyball.

West Texas Board of Women Officials

Chairman: R. Jeannine McHaney, Texas Tech Univ., Lubbock 79409.
Badminton Chairman: Betty Tevis, Texas Tech Univ., Lubbock 79409.
Tennis Chairman: Laura Kitzmiller, Texas Tech Univ., Lubbock 79409.
Ratings given in badminton*, basketball, tennis, volleyball.

SOUTHWEST DISTRICT

District Officiating Coordinator: Fern Gardner,
Utah State Univ., Logan, Utah 84321.

ARIZONA

Central Arizona Board of Women Officials

Chairman: Dorothy Naples, Phoenix College, 1202 W. Thomas, Phoenix 85020.
Badminton Chairman: Merle Packer, Arizona State Univ., Tempe 85281.
Ratings given in badminton, basketball, softball, swimming, volleyball.

Southern Arizona Desert Board of Women Officials

Chairman: Jean Metcalfe, Cholla H.S., 2001 W. 22nd., Tucson 85705.
Badminton Chairman: Peggy Steger, Palo Verde H.S., 1302 S. Avenida Vega, Tucson 85710.
Ratings given in badminton, basketball, softball, volleyball.

CALIFORNIA

San Joaquin Board of Women Officials

Chairman: Diana Perry, 735 East Noble, Apt. 2, Visalia 93277.
Tennis Chairman: Barbara Avila, 3938 E. Fedora, Fresno 93705.
Ratings given in basketball, gymnastics, tennis, volleyball.

STANDARDS FOR OFFICIALS RATINGS

Badminton, Basketball, Softball, Swimming, Tennis, Track-Field, and Volleyball

There are five officials ratings. Each is designed to meet the needs of various levels of sports events and to stimulate interest of individuals who desire to officiate. All ratings are transferable, and none is a prerequisite to any other rating.

The *Intramural rating* qualifies the holder to officiate games in the school in which she is enrolled or games of comparable level.

The *Associate rating* qualifies the holder to officiate games which may be adequately controlled by a lesser experienced official.

The *Local rating* signifies that the holder is capable of officiating the typical interschool or recreational league game.

The *Honorary rating* denotes at least ten years' service as a National official and represents maturity and experience.

The *National rating* signifies that the holder is capable of officiating any game anywhere in the United States. This rating is for the most highly skilled official.

Specific requirements for all ratings are outlined below.

Intramural Official

1. Minimum grades—theory, 70; practical, 70.
2. Theoretical examination—special intramural examination or national examination, minimum 70.
3. Practical examination—satisfactorily calling one contest.
4. Age—no requirement.
5. Duration—two years from next June 1.
6. Recommended fees—minimal fees as established by the institution, if desired.

Associate Official

1. Minimum grades—average of theory and practical, 75.
2. Theoretical examination—national examination, minimum 74.
3. Practical examination—given by at least one National official, minimum 75.
4. Age—no requirement.
5. Duration—two years from next June 1.
6. Recommended fees—maximum \$5 plus traveling expenses for a single game, match, or meet.*

*Note: These fees are recommended by the Executive Board as a guide to Affiliated Boards. These boards may set fees lower or higher than those suggested above when the local situation demands an adjustment from the recommended fees.

Local Official

1. Minimum grades—average of theory and practical, 80.
2. Theoretical examination—national examination, minimum 78.
3. Practical examination—given by at least two members with National ratings, minimum 80.
4. Age—no requirement.
5. Duration—two years from next June 1.
6. Recommended fees: \$7 plus traveling expenses for a single game, match, or meet.*

Junior National Official

1. Age—below 20 years. At 20 years, rating automatically becomes a National rating.
2. For other requirements, see *National Official* below.

National Official

1. Minimum grades—average of theory and practical, 85.
2. Theoretical examination—national examination, minimum 82.
3. Practical examinations
 - a. Practical examination—given by at least three members with National ratings, minimum 85.
 - b. Alternate plan for basketball or volleyball (second year of trial)—after holding a National rating with the same board for four consecutive years, the official may request that seven different coaches evaluate her officiating (see appropriate sports packets for details), in lieu of the practical rating session.
4. Age—minimum 20 years by June 1 of the year rating is taken.
5. Duration—two years from next June 1.
6. Recommended fees—\$9 plus traveling expenses for a single game, match, or meet. If only one official is used, the fee should be \$18 plus traveling expenses for a single game.*

National Honorary Rating

1. An applicant is eligible to apply after earning her *fifth consecutive rating at two-year intervals*. The application should be made to the past chairman of the Officiating Services Area by the affiliated board chairman and should be in the hands of the past chairman by March 1.
2. Alternate requirement—when a lapse of one year has occurred in the holding of a National rating, twelve years of service as a

*See *Gymnastics Guide* for information about judges' ratings in gymnastics and fee exceptions.

- National or Junior National Official are required. This would be a span of 13 years. Apply after earning the sixth rating.
3. Duration—as long as the official remains active (actively officiating games, training officials, or acting as a rater for an affiliated board). For reinstatement after being inactive more than one year, the official must pass the national theoretical examination with a minimum score of 86.

Levels of ratings for gymnastics and synchronized swimming are:

	Minimums	
	Theoretical	Practical
<i>Gymnastics</i>		
National	90	80
Regional	80	65
Local	70	50
<i>Synchronized Swimming</i>		
National	90	85
Regional	80	75
Local	70	65

FEE EXCEPTIONS

Swimming. The recommended fees for Nationally rated swimming officials are:

When there are three officials: \$6 plus traveling expenses per official for a single meet (whether dual or group); \$9 plus traveling expenses per official for meets with first and second teams participating.

Where there are fewer than three officials: \$9 plus traveling expenses per official for a single meet (whether dual or group); \$12 plus traveling expenses per official for meets with first and second teams participating.

Tennis. In compliance with the United States Lawn Tennis Association policy, no fees will be charged for officiating tennis matches, although travel expenses may be accepted.

Track and Field. It is customary for one official to be paid a minimum of \$9 per session (a session shall be defined as a period of time approximately three hours in length) plus traveling expenses. In the case of shorter sessions, fees should be adjusted accordingly. When possible, other officials may be paid.

REGISTRATION OF OFFICIALS

A number of states require those who officiate either boys or girls interscholastic contests to be registered with the State High School

Athletic Association or other administrative body. Holding a DGWS rating ordinarily does not exempt an official from complying with this regulation.

All DGWS officials who officiate any high school or junior high school games are urged to cooperate fully with their state regulatory body by registering with the proper organization and paying any required fee, by wearing the official emblem in addition to the DGWS emblem, and by complying with all requirements for sports officials.

AMATEUR STANDING OF OFFICIALS¹

An official who wishes to maintain her amateur status as a participant in a sport must be aware of the ruling(s) on amateur status established by the governing body for that sport.

Amateur status may be defined by groups governing high school and college level competition. National organizations governing amateur competition may also have established rulings on the amateur status of the participant.

The official who wishes to maintain her status as a participant is responsible for investigating the specific regulations of the governing body who has jurisdiction over her eligibility as a participant.

Amateur Standing in Basketball, Track and Field, and Swimming

According to the Amateur Athletic Union, which has jurisdiction over amateur basketball, track and field, and swimming, any person receiving compensation for officiating in any sport renders herself ineligible for further amateur competition.

An official, without jeopardizing her amateur standing, may request, receive, or accept expenses in connection with her participation in any event which shall not exceed (a) her actual expenditures for travel (eight cents per mile or first class public transportation fare) and (b) her actual expenditures for maintenance up to a nonitemized total of \$10 per day.

Amateur Standing in Softball

The Amateur Softball Association has taken the position that umpires who officiate softball games and are paid for their services do not professionalize themselves and are thereby eligible to participate in ASA competition.

Amateur Standing in Volleyball

According to the United States Volleyball Association, volleyball officials may get only transportation, meals, and lodging and may receive no honorarium if they wish to retain their amateur standing.

¹For more complete details, see *JOHPER* 39: 24-27, October 1968.

HOW TO BECOME A RATED OFFICIAL

1. Study the rules, the article on the techniques of officiating, and the study questions.
2. Attend interpretations meetings and officiating clinics or training courses conducted in your vicinity.
3. Practice often. To some, officiating comes easily; to others it comes only as the result of hard work and concentration. Welcome criticism and work hard to improve.
4. Find out from the chairman of the nearest affiliated board when examinations for ratings are to be held. (Consult list of affiliated boards.)
5. Contact the chairman of the nearest affiliated board for materials necessary to give Intramural ratings.
6. Remember that it is the aim of the Officiating Services Area to maintain a high standard for National officials. Do not be discouraged if you do not receive a National rating on your first attempt. Welcome suggestions from the examiners, practice more, and try again.

INFORMATION FOR AFFILIATED AND PROVISIONAL BOARDS

An *affiliated* board is a board which has at least three National officials in a given sport; it is authorized to give ratings at all levels in that sport.

A *provisional* board is a board which has at least three Associate officials in a given sport; it is authorized to give ratings at the Intramural and Associate levels in that sport.

When OSA rating films are used as a medium for rating in synchronized swimming and gymnastics, these boards may award ratings at any level and do not need three National or three Associate officials.

An affiliated board which finds it cannot fulfill the requirements for retaining full affiliation may request permission from the OSA chairman to become a provisional board. An affiliated board may request provisional status in sports in which it has fewer than three National officials, while retaining full affiliated status in sports in which it has three National officials. Boards giving gymnastics and/or synchronized swimming ratings have affiliated status in those sports.

Boards are urged to promote the rating of Intramural officials by supplying examinations and practical rating forms to teachers in nearby schools. Fees to cover operating expenses may be charged to the candidates for these services. Records of all ratings must be kept by the boards.

Please write to the Officiating Services Area secretary for assistance in the organization of new groups desiring to become affiliated or provisional boards.

**Badminton, Gymnastics,¹ Softball, Swimming, Synchronized Swimming,¹
Tennis, and Track and Field Ratings**

A board does not need to have a specific number of officials in order to initiate ratings in these sports. Examinations will be sent to the board chairman when she makes application to the chairman of the Examinations and Ratings Committee *of the sport in which ratings are to be given*.

Examination packets are mailed according to the following schedule:

September 15—badminton, basketball, swimming, synchro-
nized swimming, tennis, and volleyball
When rating film booking has been confirmed—gymnastics
November 15—track and field
January 15—softball

Choose at least three of the best qualified individuals to act as the examining committee for the sport. (After two years, if a board wishes to continue affiliation in a sport, it will be required to have at least three National officials in the particular sport.)

Basketball and Volleyball Ratings

To initiate ratings in basketball, an affiliated board must have three National officials, and a provisional board must have three officials with at least an Associate rating.

To initiate ratings in volleyball, an affiliated board must have one National official, and a provisional board must have one official with at least an Associate rating.

Emblem and Uniform

The emblem for National officials in all sports consists of a shield. Other emblems are available for Local, Associate, and Intramural officials.

The official uniform for basketball, volleyball, and track and field is a navy blue and white tailored shirt or navy blue and white jersey worn with either a navy blue tailored skirt, culotte, or kilt, and appropriate rubber-soled shoes, and socks. A navy blue blazer may complete the uniform if desired. Officials who receive fees for officiating are required to wear the official shirt.

The official shirt and white shorts or tailored skirt constitute the uniform for National swimming officials.

The official shirt and navy blue or white tailored skirt constitute the uniform for National tennis officials.

For softball, the umpires shall wear uniforms which are navy blue in color.

¹ See respective *Guides* for rating procedures.

The official shirts and emblems are available from The Hanold Company, Sebago Lake, Maine 04075. The company can also provide approved blazers. When ordering, send dress size and check or money order for correct amount. Anyone may order the official shirt. A current rating card must accompany an individual's order for an emblem; however, it is not necessary to send a rating card when ordering a shirt.

An affiliated board may wish to have a supply of shirts or emblems for distribution to newly rated officials. A quantity order may be placed *only* by the affiliated board chairman. It is not necessary that the chairman enclose her own rating card, but full payment must accompany the order.

Prices: Shirt \$5.50; knit jersey with zipper neck, \$8.50; knit jersey with button neck, \$12.00; doeskin blazer, \$28.00; National and Junior National emblems, \$1.75; Local, Associate, and Intramural emblems, \$1.

Shipping Charge: 75¢ per order.

HOW TO ESTABLISH A BOARD OF OFFICIALS

1. Establish the need for an affiliated board by contacting women in the area who have current ratings or who are interested in standardizing and raising the level of officiating badminton, basketball, gymnastics, softball, swimming, tennis, track and field, or volleyball in that area.
2. Write to the Officiating Services Area Secretary, listed in the Officiating Services Area section of this *Guide*, for a sample copy of an authorized constitution for officials' boards and the Policies and Practices Handbook and application for becoming an affiliated board.
3. At a designated meeting of interested women, present plans for forming a board.
 - a. Choose a name which will permit expansion of function as need may arise; do not limit title to one sport.
 - b. From the group, elect a chairman, chairman-elect, secretary, and treasurer.
 - c. Form an examining committee of at least four members. If any member has been rated elsewhere, her experience should be helpful; such a rating is not necessary, however, except in basketball and volleyball. (See 4 below.) It is suggested that members of the examining committee be examined and obtain ratings from other affiliated boards whenever possible.
 - d. Make plans for drawing up a constitution according to the sample copy received from the Officiating Services Area. Plan to devote some time to the study of the rules and to practice officiating. If possible, secure the assistance of some

rated official in each sport for which the Board anticipates giving ratings.

4. Send to the Officiating Services Area Secretary the completed application form, two copies of the local constitution, and a check for \$5 annual dues (made payable to the Officiating Services Area). If *basketball* ratings are to be given, an affiliated board must send a list of three National officials, and a provisional board must send a list of three officials with at least an Associate rating. If *volleyball* ratings are to be given, an affiliated board must send the name of one National official, and a provisional board must send the name of one official with at least an Associate rating. A list of four interested women must be sent if the board wishes to give rating in sports other than basketball or volleyball. If a board wishes continued affiliation in any sport, at the end of two years, an affiliated board will be required to have at least three National officials; a provisional board will be required to have at least three officials with at least an Associate rating. Approval of the application will come from the Officiating Services Area Chairman who will request that examination packets be sent to your Affiliated Board Chairman for all sports in which your Board is authorized to give ratings. The process of accepting an application for affiliation of a new Board and of requesting that the proper examination packets be sent ordinarily takes several weeks. Prospective Boards, therefore, should file for affiliation at least a month before they wish to hold rating sessions.
5. Administer Form A of the National Theoretical Examination. To cover the operating expenses, charge a small fee payable at the time of taking the written examination. Form B of the National Theoretical Examination may be administered to those who did not pass Form A.
6. Conduct practice sessions in rating officials. All persons on the examining committee who have not previously rated officials should have a minimum of three practice sessions prior to actually rating. Secure the assistance of a rated official in these practice sessions if at all possible.
7. Give practical examinations to individuals who pass the written examination. These should be conducted by three members of the examining committee.
8. Request appropriate rating cards from the OSA Secretary for distribution to those who pass the theoretical and practical examination.
9. Send lists of approved officials to schools and other organizations in the area. This notice should indicate the maximum fees for officiating in accordance with the OSA policy and should

give the name, address, rating, and telephone number of each official.

10. Keep accurate lists of all persons receiving ratings. Forward these lists to the chairmen of the Examinations and Ratings Committees in those sports in which your Board was authorized to give ratings.

SOURCES OF INFORMATION AND MATERIAL

Information Needed	Source
Board Policy	Officiating Services Area Chairman
Policies and practices handbook . .	Officiating Services Area Secretary
Rules interpretation	DGWS rules interpreter for each sport. Secure the name from the current <i>Guide</i> of the sport.
Expansion and affiliation.	Officiating Services Area Secretary
Dues	Officiating Services Area Treasurer
Officiating standards for each sport.	Chairman of the Principles and Techniques of Officiating Committee
National Honorary rating	Past Chairman of the Officiating Services Area

Materials Needed	Source
Rating cards	Officiating Services Area Secretary
Examination material	Examinations and Ratings Chairman for the sport in which examinations are desired
DGWS <i>Guides</i>	DGWS-AAHPER, 1201 Sixteenth St., N.W., Washington, D.C. 20036
Uniforms and emblems	The Hanold Company, Sebago Lake, Maine 04075

Officiating Services Area officers are listed under Officiating Executive Board in this *Guide*.

DGWS BADMINTON COMMITTEE¹
1970-1972

COLLEEN GEORGE, *Chairman*, North Texas State Univ., Denton 76203
KATHY HILDRETH, *Past Chairman*, Univ. of Northern Colorado, Greeley 80631
M. ALMA BLAKE, West Charlotte Senior High School, Charlotte, N.C. 28202
DOROTHY BURDESHAW, Univ. of Texas at Austin, Austin 78712
LYNN CARPENTER, Eau Gallie High School, Eau Gallie, Fla. 32935
SHIRLEY A. DUTTON, Univ. of Wyoming, Laramie 82071
VERDA HANES, Meade Junior High School, Wichita, Kans. 67211
DORIS E. HENDERSON, Illinois State University, Normal, Ill. 61761
MARILYN PARRISH, Tillamook High School, Tillamook, Oreg. 97141
MARTIE STEPHENS, Wisconsin State Univ., LaCrosse 54601
BETTY TEVIS, Texas Tech Univ., Lubbock 79409
SUE THOMPSON, Rt. 1, Box 464, Eugene, Oreg. 97402

Advisory Members

BETTY BROWN, *Associate Chairman, Sports Guides and Official Rules Committee*, College of William and Mary, Williamsburg, Va. 23185
DORIS E. HENDERSON, *Badminton Principles and Techniques of Officiating Committee*, Illinois State Univ., Normal 61761
PATSY CALDWELL, *Badminton Examinations and Ratings Committee*, North Texas State Univ., Denton 76203

¹ Guide material was prepared by 1970-1972 Committee.

DGWS BADMINTON COMMITTEE¹
1972-1974

DORIS L. HENDERSON, *Chairman*, Illinois State Univ., Normal 61761
COLLEEN GEORGE, *Past Chairman*, North Texas State Univ., Denton 76203
SHERAN L. BENERTH, Ben Eielson High School, Eielson AFB, Ala. 98737
GEORGANNA S. COTTMAN, Easton Middle School, Easton, Md. 21601
RUTH ANN CHRISTIANSON, Aggassiz Elementary School, 510 W. 38th St., Minneapolis, Minn. 55409
CAROL MONROE, West Virginia Institute of Technology, Montgomery, W. Va. 25136
DIXIE LU STAHR, Indiana State Univ., Terre Haute 47809
MARTHA STEPHENS, Wisconsin State Univ., La Crosse 5460
JANE E. TARRING, Metcalf Middle School, Exeter, R.I. 02822
BETTY TEVIS, Texas Tech Univ., Lubbock 79409
BETTY WALLACE, Henderson State College, Arkadelphia, Ark. 71923
PAULA WELCH, Eastern Kentucky Univ., Richmond 40475

Advisory Members

JOANNE DAVENPORT, *Associate Chairman, Sports Guides and Official Rules Committee*, Univ. of Illinois, Urbana 61801
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¹ Material for 1974-1976 Guide to be prepared by 1972-1974 Committee.

Construction of Self-Testing Practice Situations

VIRGINIA LEE BELL

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A practice situation which includes self-testing is one in which the student keeps a record of each trial. A diagnostic record of performance will enable the teacher to be more effective in giving individual help to students and can aid in analyzing the student's difficulty. In addition, such a record will show change although the student may not have reached the ultimate goal in the execution of a skill.

Self-testing devices should be constructed following an analysis of the elements of the skill. Suggestions for analysis, construction of practice situations, and methods of scoring will be presented in the following discussion.

Analyzing The Elements of the Skill

Many physical education activities include skills which involve imparting force to a projectile in a specified direction. The skills should be analyzed in terms of force and accuracy. In describing force, one or both of the following questions should be answered:

1. How far should the projectile go?
2. What is the desirable trajectory of the projectile?

In describing accuracy, both lateral and vertical accuracy should be considered. Lateral accuracy refers to the size of the goal in terms of left and right. Vertical accuracy refers to the high point of the trajectory and/or the size of the goal in terms of up and down. Rules, strategy, and ability level of the students are valuable aids in skill analysis. As an example, the badminton short serve will be analyzed.

Force. Badminton rules dictate that the distance from the short service line to the opposite court shall be 13 feet and that a legal serve must land inside the opposite short service line. The diagonal

distance will be greater. The desirable force requirement, therefore, is the ability to project the shuttlecock 14 to 15 feet.

Lateral Accuracy. The rules dictate that a legal serve must land within the sidelines of the service court a lateral distance of 10 feet in doubles. This may be sufficient goal for a beginner. Finer placement is required at more advanced levels of play, thus requiring greater lateral accuracy. The degree of accuracy for the advanced player may be defined by the teacher as the ability to place the serve within a 3- or 1-foot area.

Vertical Accuracy. Strategy indicates that a short serve should travel close to the net. The skill level of the students aids in determining whether the high point of the serve shall be defined as being within one foot or two feet of the net.

Summary

The analysis of the short serve suggests that the student should be able to project the shuttlecock a distance of 14 to 15 feet. The beginning student should place the serve within a lateral area 10 feet wide; the advanced student should place the serve within an area 1 foot wide. The high point of the trajectory should be within 2 feet of the net for a beginner and 1 foot of the net for an advanced performer.

Construction of Practice Situations

The self-testing practice situation should be constructed so that the student's performance can be measured in relation to the elements of the skill. The situation should require a minimum of extra equipment and enable many students to participate at the same time.

As an example, a self-testing situation involving the short serve can easily be set up on the badminton court. To measure force, a line may be placed within one foot of the short service line on the side away from the net and parallel to it. A serve landing between the lines will meet the force requirement. To measure lateral accuracy, the sidelines of the court may be used for a beginner, or a smaller target (one foot wide) may be marked off for a more advanced performer. To measure vertical accuracy, a string may be stretched above the net. In this manner, the force imparted to the projectile as well as lateral and vertical components of accuracy can be measured.

When the performance of a skill is dependent upon a set-up, a double self-testing situation may be designed to control it. Testing the overhead clear in badminton will provide an example of this technique. The analysis of the overhead clear indicates that a

beginner should project the shuttlecock to a minimum high point of 15 feet at a distance of 14 feet from the net. The shuttlecock should then drop near the baseline of the opponents court. To measure performance, a string may be stretched across the courts 14 feet from the net and parallel to it at a height of 15 feet from the floor. To execute an overhead clear, a player must hit a falling shuttlecock. To standardize the situation so the performers have set-ups which are similar in nature, students setting up should be required to project the shuttlecock to a specified height at a specified distance from the net. These requirements may vary according to the students' ability level. For beginner, the requirement for the set-up might be 13 feet high at a distance of 8 feet from the net. To insure an adequate set-up, a second string may be stretched across the courts to meet the specifications (Figure 1).

Key
 Rope
 Path of set up
 Path of clear

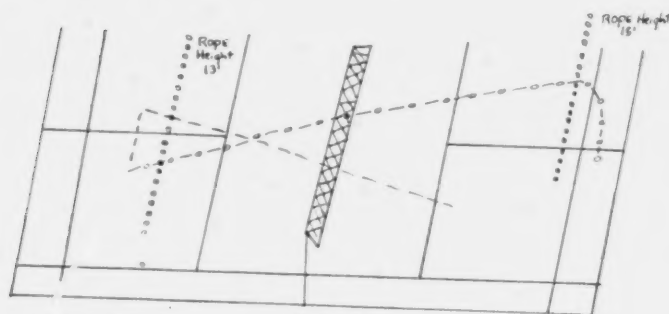


Figure 1.

Scoring Procedures

The method of scoring should provide a diagnostic picture of the students' performance in relation to all of the elements of the skill. The most diagnostic method utilizes a scorecard with a diagram of the court or target. Using the short serve as an example, the results of each trial may be recorded so they indicate whether the shuttlecock went (O) over the string or (U) under the string and where it landed. An (O) or (U) is written on the card to indicate placement (Figure 2). Such records can be helpful to teachers.

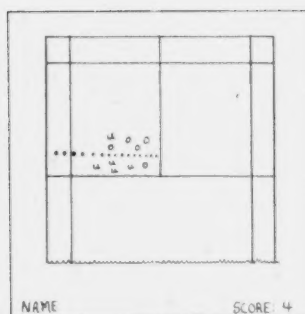


Figure 2.

The record in Figure 3 indicates that the student is having difficulty with force production whereas the record in Figure 4 indicates that the student is having difficulty with vertical accuracy. Although neither student has reached the desired goal, their problems appear to be quite different and appropriate teaching cues can be suggested. If the teacher had seen only the atypical trial, her comments could be quite different from those she would make based on a knowledge of a series of trials.

The information on the scorecards may be quantified by counting the number of successful trials out of 10 or 20. In Figure 2, 10 trials

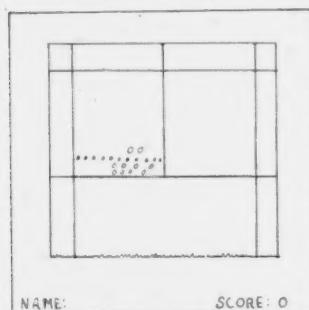


Figure 3.

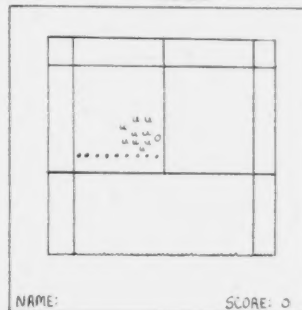


Figure 4.

have been recorded. The score would be four. In Figures 3 and 4, the score would be zero.

BADMINTON SELF-TESTING PRACTICE DRILLS

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Doreen Irish received her B.A. degree from California State College, Los Angeles, and has been an active contributor to DGWS clinics in Southern California. She is presently working on her M.A. degree and is a part-time instructor at California State College (Los Angeles).

Self-testing practice drills for the long serve, the smash, and the forehand and backhand drives are presented in this article. Each of the suggested practice situations is presented according to the purpose of the skill as it is used in the game; a description or diagram of the physical setup as it might be used with beginners; procedures for participating in the drill; the method of scoring and a scorecard; and variations in the setup or scoring procedures to make the drill useful for more advanced students.

THE LONG SERVE

Purpose

The serve is a vital stroke in badminton because a point cannot be scored unless a player is serving. Since serves must be hit underhand, and thus directed upward, they are considered defensive shots. The long, high serve is the basic serve employed in singles play; it should be hit high (some experts say as high as 30 feet) and deep to a point above the back alley.

Experts recommend a starting position near the center line at about 3 or 4 feet behind the short service line. Thus, if the serve is to be an effective weapon, it must travel approximately 31 feet, and achieve a minimum height of 15 feet at a distance of 14 feet from the net (high enough to go over the opponent's extended arm and racket). In addition, it must land within the boundaries of the singles service court.

Description

To measure height (vertical accuracy), a string may be stretched horizontally across the back court 14 feet from the net and parallel to it at a height of 15 feet from the floor. Various methods may be used to secure the string, such as fastening the string to poles, hooks, or nails on the walls, or taping it to balcony railings or some other permanent object. Where several courts are located side by side, the string may be extended from one wall to the other to provide for more than one practice court.

A target to measure depth can be provided with masking tape or chalk on the floor of the court. A straight line drawn parallel to the back boundary line and dividing the back alley in half will establish two target areas (Figure 1). In addition, it is recommended that another parallel line be drawn one foot beyond the endline. In a game situation, most players would return a serve directed to this area rather than risk letting the bird drop. A starting position, as indicated above, should be marked on the opposite side of the net in both service courts.

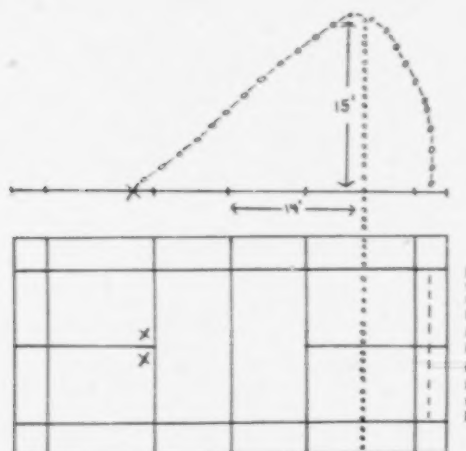


Figure 1.

X = HITTER - - - - - TARGET BOUNDARY LINES
 o-o-o-o-o STRING -o-o-o-o- FLIGHT OF THE BIRD

Procedures

Players should be organized in partners, one to practice the serve, the other to score the results. Four players can work on one court, one pair in each service court. If each server has a box with 10 or 20 birds, practice proceeds most efficiently. After 10 trials in one service court, servers change to the other court and then change places with their scorer-partners. For each trial, the scorer judges whether the bird goes over (O) or (U) the string and marks the scorecard with an O or U to indicate where the bird landed.

Scorecard

Figure 2 contains the scorecard format. Point values can be assigned to the target areas as indicated. Serves going over the rope score full value; those landing in a specified area but going under the rope score only half the value of that area.

Variations

More advanced players might be required to achieve a higher minimum height, thus the string could be raised to challenge their ability level. In addition, finer placement in terms of lateral accuracy is desirable at advanced levels, thus lines perpendicular to the back boundary line could be drawn two or three feet inside the center line and the singles sideline (Figure 3).

NAME		SKILL LONG SERVE	
DATE		SCORE 38	
4	4	4	4
4	4	4	4
4	4	4	4
4	4	4	4

Figure 2.

Figure 3.

THE SMASH

Purpose

The smash is the point-winning shot in badminton. Usually the object is to hit the shuttle directly to the floor; speed and placement are also essential elements. Possible target areas are directly at the opponent, at any open court space that may have been created by prior shots in a rally, to the weaker stroke side of the opponent, and down the line rather than cross-court. Cross-court shots travel a longer distance and thus give a slight time advantage to the opponent.

For a beginner to learn how to smash from a position slightly in front of mid-court and aim down the line at a mid-court target, the shuttle must be hit from full extension. It must travel approximately 22 feet downward at a sharp angle and land within 3 feet of the singles sideline (lateral accuracy).

Description

The practice of the smash requires a consistent setup. The setup may be controlled by stretching a string 13 feet high at a distance of 8 feet from the net (on the smasher's side). Two starting marks should be drawn on the floor 10 feet from the net. A second string should be stretched directly above the net 8 feet from the floor. On the other side of the net, the position of the setup person and the target areas should be marked with tape or chalk according to the dimensions illustrated in Figure 4.

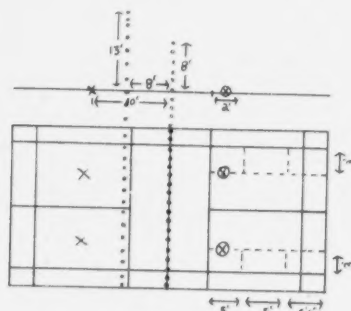


Figure 4.

X = HITTER ⊗ = SET-UP PERSON

Procedures

Groups of three participate most effectively at each station: one performer, one person to hit the setup, and one scorer. The performer stands on the starting mark and the setup person stands in his marked position with a box of 10 or 20 birds beside him. The setup should be an underhand serve that passes over the 13-foot string, is hit to the performer's forehand side, and permits the performer to smash from the mid-court position. A line may be drawn on the floor 11 feet from the net and setups going past this line may be rejected by the performer. The performer attempts to direct the smash between the net and the 8-foot string so that it lands in the target area directly behind the short service line. The scorer judges whether the bird went under or over the string and marks U or O on the scorecard on the spot approximating where the smash landed on the court. Players rotate after a specified number of trials. On the same court two groups of three can practice, and groups should change sides after each player has had a turn.

Scorecard

In Figure 5, suggested point values have been placed on the diagram in case quantification of performance is desirable. Shuttles passing over the eight-foot string score half the value of the target area.

NAME:	SKILL: SMASH
DATE:	SCORE: 31

2										2
4										4
6										6

Figure 5.

Variations

In adapting the practice to intermediate and advanced skill levels, the difficulty of the setup could be increased so that the smasher must judge a higher flight and hit from a somewhat deeper position in the court. (Usually the smash is not used from the back three or four feet of the court.) The target areas can be refined to increase demands made on the lateral accuracy of the performer, and performers may practice directing smashes into the cross-court target areas if desired.

THE DRIVES

Purpose

The badminton drive is a forceful, flat sidearm stroke. It can be performed either as a forehand or a backhand and is used when the approaching bird is between waist and shoulder level. Drive trajectory should be parallel to the floor, the bird just skimming over the net. The beginner should be able to drive from his own mid-court to the opponents' mid-court area across the net. The analysis of the drive, therefore, suggests that the beginner should be able to project the bird in a flat trajectory within 12 or 14 inches of the net (vertical accuracy) through a distance of approximately 22 feet (force), causing it to land within one-half of the singles court (lateral accuracy).

Description

To measure vertical accuracy, a string should be stretched 14 inches directly above and parallel to the net. On one side of the net, two marks for the setup persons should be made on the floor 2 feet behind the short service line. The hitting marks are made 5½ feet behind the short service line on the opposite side of the court (Figure 6).

Procedures

For each court, players should be organized into two groups of three people. The setup person, with a box of 10 or 20 birds, stands on the setup mark and hits each bird over the string to the performer who stands on the hitting mark. When hitting a correct drive, the player must pivot and step toward the bird. The setup, therefore, should be to the side of the hitter. In the ideal setup, the bird should be hit to the performer between shoulder and waist level; the performer should then drive the bird back between the net and restraining string. The third player is the scorer. A player should hit 10 forehands on the right side of the court or 10 backhands on the left side of the court, then change places with the other players and complete the drill.



Scorecard

The scorer marks each trial on a simple diagnostic scorecard (Figure 7) in relation to its landing point on the court. A U is scored if the bird goes under the string and an O is scored if the bird goes over the string. If a point total is preferred, two points can be given to each U trial that lands inside the court and one point can be given for each O trial. By examining the location of the 20 hits, the player can determine if sufficient vertical force is being used to gain the necessary depth for a successful drive.

NAME _____ DATE _____

SKILL DRIVES
SCORE _____
FORWARD - 1W
BACKWARD - _____

B		F	
		O	
		U O O	
		U U	
		U U	
		O U	

Variations

The drill can be changed in various ways to become adaptable for more advanced performers. In designating target areas on the court (similar to those of the smash drill, Figure 5), lateral accuracy and greater application of force can be tested. To accomplish this, a line can be drawn across the court 11 feet from the net, and the performer should be required to drive the shuttle past the line. For the very advanced player, the string can be lowered to force the player to make the bird skim the net. Another change would be to specify either cross-court or down-the-line shots.

Conditioning for Competitive Badminton

MARTHA STEPHENS

Martha Stephens received her B.S. degree from Appalachian State Teachers College, Boone, North Carolina, and her M.S. degree from the University of North Carolina at Greensboro. She is a physical education instructor at Wisconsin State University, La Crosse, Wisconsin, where she has coached badminton for three years.

Is your badminton team still moving well after a day's tournament? Is your badminton team still moving? If not, then conditioning may be your answer.

Teaching skills to perspective team members is only part of a good badminton program. Without proper conditioning, the skills will deteriorate in the fatigue of the final minutes of the day. Preparation for play involves the development of endurance, strength, and agility.

The following conditioning program has been used at Wisconsin State University at La Crosse for the last two badminton seasons. The program is a preseason program and should be modified if used during the season. If possible, the program should be started at least four weeks prior to the first tournament date. The program has the following main advantages: (1) No special equipment is required. (2) The program can be conducted in a gymnasium or dormitory room. (3) The time needed per day is less than 30 minutes. (4) A record of each person's progress is submitted weekly.

The weekly progress chart is illustrated in Figure 1. Each grouping of exercises has a required exercise and a selection from which one additional exercise is chosen for the day. The program involves a workout for four days a week, and the chart is given to the coach at the end of each exercise week. Group number four (Figure 1) is included for the purpose of determining the athlete's activity level which goes beyond the conditioning program and classwork requirements. The resting pulse rate and weight measurements help the coach identify potential health problems.

Description of Exercises

The endurance exercises should challenge both the aerobic and anaerobic sources of energy. By involving both of these systems, one is able to gain the endurance necessary (1) to compete the long tournament day and (2) to achieve bursts of energy needed to play a single point.

Week _____

Do at least two exercises from each grouping. The required exercise must be done; then you may choose the other exercise from the list in each grouping. Fill in the appropriate block for the day, the time required to complete the exercise, and the number of exercises completed. The range of accepted performance is indicated after each exercise.

1. Endurance
*Run: 4-8 minutes
Rope Skip: 50-100
Squat thrusts: 10-25
Grasshoppers: 10-25

2. Strength
*Sit-ups: 10-30
Push-ups: 10-30
Wall-sit: 30-90 seconds
Ball squeeze: 50-100

3. Agility
*Agility jump: 20-40
Agility run: 5-10
Shuttle run: 10-20

4. Other: not required but report any activity exclusive of class work that you have participated in during the week.

[illegible]

Resting Pulse _____ Weight _____

Overload is introduced into the program by increasing the number of repetitions in a specified time limit and/or by increasing the time limit. For example, at the end of the first week, the athlete might be running 10 laps in four minutes; by the end of the second week, she might be running either 12 laps in four minutes or 15 laps in six minutes. Each girl is encouraged to overload her own exercise program based on her level of fitness and individual needs. The amount of overload and its effect on the girl can be noted through observation which is supplemented with the knowledge gained from reviewing each girl's weekly progress chart.

The specific exercises under the endurance grouping include running, rope skipping, and performing squat thrusts and grasshoppers. In the initial stages, the running is actually jogging. The rope skipping is a two-foot jump, but variations are allowed. The squat thrusts are performed to a four-beat count by squatting down from a standing position, extending the legs into a push-up position, and then reversing the procedure back to the standing position. The grasshoppers are started from a push-up position with one knee flexed under the chin and the other leg fully extended. The legs then alternate positions to a two-beat count with the hips lowering on each leg change.

The strength exercises include the bent knee curl-ups (sit-ups), push-ups, wall sit, and the ball squeeze. The push-ups are initially the modified type; however, many girls progress to the point of doing a full length push-up. To perform the wall sit, each girl aligns her back with a flat wall and then sits with the knees at a right angle and the lower leg perpendicular to the floor. The ball squeeze is primarily for girls who have weak grip strength. An old tennis ball is used and both hands are exercised. These exercises provide a workout for the abdominal, arm, leg, and grip areas of the body. Progression and overload are the keys to an efficient workout.

Agility, the ability to change directions quickly, is a must for good badminton players. All three exercises included in the conditioning program require a quick change of direction. The exercises have been described by Colvin and Lester.¹

The *agility jump* involves jumping forward and backwards relative to four squares marked on the floor. The girl jumps from the lower right to the upper right square to the lower left square to the upper left square and then repeats the sequence.

The *agility run* is a circuit which starts from a home position which is 13 feet from a wall. Three squares, each one a foot from the

¹ Valerie Colvin and Mignon Lester, "Badminton Skills through Circuit Training," in *Tennis-Badminton Guide: 1968-1970* (Washington, D.C.: AAHPER, 1968), pp. 122-126.

wall with 5 feet between any two squares, are marked off on the floor. The number two square is directly in front of the home base position. A 5-foot net line is marked on the wall with a center focal point directly above the number two square. The girl running the circuit starts at home base, moves to each square in numerical order from home base, and returns to home base each time. She always faces the focal point on the wall. Each circuit counts as one time.

The *shuttle run* is a shuttle between two parallel lines that are 16 feet apart. The athlete starts behind one line and then shuttles back and forth, touching each line. Each line touched counts as one time.

International Team Play for Women: The Uber and Devlin Cups

DIANE MOORE HALES

Diane Moore Hales has held the following badminton titles: 1966 Junior National Doubles Champion; 1968, 1970, and 1971 California State Singles Champion; 1970 DGWS National Intercollegiate Champion; and 1971 US Ladies Singles Champion. Diane was also a member of the 1971 US Devlin Cup Team. She is currently the badminton coach at California State Polytechnic College at Pomona, California, where she received her B.A. degree in 1971.

The Uber Cup and Devlin Cup competitions provide opportunities for high calibre women badminton players in the United States to represent their country in international play. The Uber Cup competition is worldwide, with 21 nations vying for the ladies' international crown. The Devlin Cup competition, however, involves only the United States and Canada. Both men and women take part in this competition.

The Cups and Their Donors

In 1957 Betty Uber donated the hammered silver globe topped by a woman badminton player which is the prize for the world championship women's team (Figure 1). Between 1926 and 1951 she represented England in 37 international matches in which she won 50 consecutive events, including singles, doubles, and mixed doubles. She won 53 titles in Western Europe and South Africa during her career, an awesome accomplishment.

In 1966, Mr. and Mrs. J. Frank Devlin donated a sterling silver vase to be awarded to the victor in international competition between Canada and the United States. Mr. Devlin won the All-England men's singles title six times between 1924 and 1931 and won the men's doubles title five times. The Devlin's daughter, Judy Devlin Hashman, has won a total of 59 national championships, including singles, doubles, and mixed doubles in various countries since her first victory in the 1954 United States championships. Many of the national doubles victories were won with her sister, Susan Devlin Peard.



Figure 1. Uber Cup

Format for Competition

For the Uber Cup competition, the world is divided into four zones: America, Asia, Australia, and Europe. The winners of each zone meet in final interzone ties. Seven matches are played in each tie, three singles and four doubles, and each match counts one point.

The Uber Cup competition is held every three years. The first Devlin Cup competition in 1966 consisted of 14 matches. The number was too cumbersome, however, and in 1971 the matches were reduced to seven—four singles matches and three doubles matches. The men play three matches, the women three, and one match is mixed doubles.

The Results

The first Uber Cup competition was held in 1957 when the United States team defeated Canada 7-0 in Kitchener, Ontario, and then defeated India at Eastbourne, England, 7-0. In the final round, the United States defeated Denmark 6-1 to become the first holders of the Uber Cup. In 1960, Canada defaulted and the United States went on to retain the Uber Cup by defeating the Danish team at Philadelphia, 5-2.

In 1963, the United States narrowly retained the Uber Cup by defeating England 4-3 in the final round. The teams were tied by three matches each at the start of the final match of the evening. The competitors in the match were Judy Hashman and Carlene Starkey versus Iris Rogers and Jennifer Pritchard. The United States players were behind 2-8 in the third game when they suddenly pulled themselves together and won the game 15-9 and the Uber Cup for the United States.

The closeness of the 1963 Uber Cup match signaled the end of an era. In 1966 Japan entered the Uber Cup competition for the first time and defeated the United States 5-2 to win the cup in Wellington, New Zealand. In 1969, the Japanese retained the cup by defeating Indonesia 6-1 in the final round.

The first Devlin Cup competition was held in Concord, New Hampshire, the United States winning it 11 matches to 3. The women on the team—Judy Devlin Hashman, Lois Alston, Tyna Barinaga, and Caroline Jensen—played outstanding games, although two of the losses were attributed to the women.

In 1971 the Devlin Cup was contested for the second time and the United States lost to Canada 4-3. The most exciting match of the evening was the women's doubles. The contest was very close and ended with Barbara Hood and Marjorie Shedd defeating Carlene Starkey and Caroline Jensen 18-15 in the third game, thus capturing the Devlin Cup for Canada.

International team play is a rewarding experience in which all young promising badminton players should aspire to participate.

The Woman's Role in Mixed Doubles

JUNE BURKE
CLINTON SMITH

June Burke earned her bachelors and masters degrees in physical education at the University of Texas at Austin. She has taught badminton in public schools and at a private girls camp. She is currently an instructor and coach of the women's intercollegiate badminton team at the University of Texas at Austin.

Clinton Smith majored in physical education at Abilene Christian College, Abilene, Texas. He has taught badminton for several years at the Austin Athletic Club. In the 1968-69 season he and his partner earned national ranking in men's doubles. He has served as president of the Southwest Badminton Association and as an ABA director for the Southwest Region.

Badminton has often been praised as a sport of universal appeal. There is a challenge here for all — novice or master, young or old, male or female. The image of the game is enhanced further by the fact that it is one of only a few sports in which men and women may combine their skills. A well played mixed doubles match is an exciting event. The pace is fast and the players must be capable of quick decisions and rapid responses. Play is characterized by explosive power allied with disciplined finesse.

In spite of the exciting possibilities, mixed doubles is frequently accorded the "ugly duckling" treatment. In physical education programs and tournaments, the mixed event is often avoided and sometimes completely ignored. In areas of the country where strong badminton club systems do not exist, the reluctance to play mixed doubles may result from a lack of knowledge of the game. The current trend toward coeducational activity classes in schools and colleges offers increasing opportunities to teach men and women to combine their skills in mixed events.

Although this article presents the woman's responsibilities in mixed doubles, the information should also be of interest to the man. He must understand his partner's role and depend upon her skill in fulfilling it.

Objective

The objective in mixed doubles is to force the opposing team to hit the shuttle upward, giving one's own team the opportunity to hit downward and "put the shuttle away." Success in reaching this objective consistently requires an effective combination of strokes and court coverage.

Essential Responsibilities

In mixed doubles the woman has three primary responsibilities. She must serve effectively, play the net aggressively, and receive boldly.

Serving

The server's objective is to force the opponent to hit the shuttle upward. One of two essential serves may be used to accomplish this goal:

- (1) A short serve to the inside corner of the service court
- (2) A flick serve to the outside corner of the service court.

The short serve to the inside corner of the court should be dominant. If executed correctly, it keeps the shuttle in the center of the court and eliminates the possibility of a smash. Any service used exclusively becomes ineffective. If the receiver anticipates the short serve inside and moves closer to the short service line, the server should flick the shuttle to the outside corner.

If the two serves are to be effective, each must be practiced diligently and mastered. The short serve should rise only slightly above the net. Almost immediately after crossing the net, the shuttle should begin its descent. If the serve does not fall below net level very quickly, the receiver will be able to rush it and "put it away."

To develop a good short serve practicing with a rope suspended 18 inches or less above the net is recommended. The target area should be an 18-inch square placed at the intersection of the center line and the short service line.

The flick serve should begin in the same manner as the short serve. A quick flick of the wrist, just as the shuttle is contacted, sends it over the receiver's head. The shuttle should rise to a height only slightly beyond the receiver's reach and fall quickly. If the serve is too low, it will be smashed very quickly; if it is too high, the receiver will have time to move back and smash. Because the doubles service court is short, a poorly executed long serve is a liability.

An effective flick serve requires practice with an 18-inch square target area placed at the intersection of the doubles' sideline and the long service line.

The woman player should practice the short inside serve several times, then hit a flick serve. She should not try to give any outward indication of which serve is to be hit. She should practice the serve against her partner occasionally. The man is usually the more formidable receiver because of his greater reach and quickness.

Net Play

At the net the woman maintains the game objective. Her efforts are to force the opponents to hit the shuttle up. The following strokes will assist her: (1) the hairpin drop, (2) the crosscourt drop, (3) the push shot, and (4) the net smash.

The hairpin and crosscourt drops are played to the opposing net player. The push shot should pass the net player and force the opposing backcourt player to move up and hit under the shuttle. The net smash is intended to "put the shuttle away."

To hit a successful hairpin drop, the shuttle should be contacted within a few inches of the net tape. The stroke is directed straight forward. The shuttle should just clear the net and drop immediately after entering the opponents' court. When practicing the hairpin drop, the player should think of it as a touch shot. Rather than stroking the shuttle, she should simply reach out and touch it. Wrist action is very slight.

The crosscourt drop shot is angled toward one corner of the opponents' court, away from the net player. Wrist action is more pronounced than in the hairpin drop because the shuttle must travel farther. Like the hairpin, the crosscourt drop should be contacted near the net tape and drop immediately after entering the opponents' court.

A drill which combines the hairpin and crosscourt drops will help the woman player develop her ability to move along the net. Two players, A and B, stand opposite each other at one end of the net. Player A hits a hairpin drop to B. Player B returns with a hairpin. Player A then hits a crosscourt drop. Player B moves to the opposite end of the net and returns the shuttle with a hairpin drop. Player A returns with a hairpin. Player B hits a crosscourt, and the pattern is repeated. If the drill is begun with the player in the forehand court, all of the crosscourt drops will be forehand. If the drill is begun with the player on the backhand side of the court, the crosscourt drops will be backhand.

Initially, the drill may be practiced between the doubles' sideline and the center line. As the player's skill improves, the drill should cover the full width of the court. Note that a cross-court drop is followed by a hairpin drop. When the shuttle is near the center limits of a player's reach, the crosscourt is very difficult to hit.

For additional net practice, a game can be played in which the back boundary is the short service line. Each point begins with a short serve and all following strokes must be drop shots.

The push shot is a stroke which is contacted at or above net level and angled downward to a point just beyond the opponents' short service line. As the name implies, the shuttle is pushed across the net rather than stroked. The intent of the push shot is to pass the net player and force the backcourt player to move in and hit the shuttle upward.

The net smash is the woman's most offensive weapon. From a point above net level the shuttle is angled sharply downward across the net. A strong wrist snap imparts enough speed to the net smash to make it almost impossible to return. Even in the rare event that the shuttle is returned, the return will have to be upward.

To practice the push shot and the net smash, the woman should enlist the aid of her partner. Standing opposite each other about midcourt, they should begin a series of medium paced drives. The man remains in the midcourt position. The woman moves gradually toward the net position. As she moves closer to the net, she will contact the shuttle higher and have greater opportunity to hit downward. If the shuttle is high enough, the woman should smash it; if not, she should use a push shot. The woman player should keep in mind that as she moves closer to the net she will have to respond progressively faster to her partner's drives. Care should be taken not to move in so close that space in which to maneuver and time in which to react are limited.

Receiving

Another responsibility of the woman player is to receive. Quickness is essential to a good service return. The sooner the receiver can reach the short serve the better her chances of hitting a successful drop or push shot. The quicker she can move back to receive the long serve the better her chances of smashing the shuttle.

If the serve is short inside, she should either drop or push the shuttle past the left (non-racket) shoulder of the opposing net player. A short serve directed toward the sideline can be most easily returned with a drop or a push shot straight ahead. A position close to the short service line will enable the woman player to reach the short serve soon after it crosses the net. Her position should also permit her to cover the two back corners of the service court. Constant awareness of all of the possibilities will make her less vulnerable as a receiver.

A smash directed toward the nearest sideline is the most offensive return of a long serve. If the receiver cannot reach the shuttle in time

to smash it, she should drop it to the nearest corner. A clearing stroke may be employed as a last choice. If the receiver clears, she should maintain her court position to defend against the possibility of a smash.

The woman player should practice her returns against her partner's serves. As her speed increases she should move her receiving position closer to the net. When she can assume a position within two feet of the line and still reach a long serve, she can receive with assurance.

Formations

Up-and-Back

The predominant court formation in mixed doubles is up-and-back. In the up-and-back system of play the court is divided into two areas. The area usually played by the man is bounded by the short service line, the right doubles sideline, the endline, and the left doubles sideline. The area played by the woman extends from the net to the short service line and from sideline to sideline. After the service, the woman assumes a position immediately in front of the "T." Since her proximity to the net does not allow much time to prepare for strokes, she should hold her racket at net level ready to play. To avoid blocking any of her partner's strokes, her racket should be held in front of her body.

From her net position the woman should play the shuttle as often as possible. The opportunity to make an offensive play is enhanced if the shuttle is played before it reaches the backcourt. The sooner the shuttle is hit, the less time the opposing team has to prepare for the return. If the net player cannot reach the shuttle while it is still in front of her body, she should let her partner move up and play it. Once the shuttle has passed the body, the number of possible returns is severely limited.

The up-and-back system is most effective during offensive play. If an error allows the opposing team to hit the shuttle downward, the up-and-back formation should be relinquished temporarily. With both players in the middle of the court, one behind the other, neither one can reach a well hit smash placed close to the sideline.

Side-by-Side

The side-by-side playing formation is the better system for defensive court coverage. The court is divided in half down the center line. Each player assumes a position slightly closer to the net than to the endline in his or her half of the court. Both players should be prepared to receive a short or midcourt shot. The opposing team is not likely to cede its offensive advantage by hitting

a deep shot. The side-by-side system of play should be employed only when a team is forced into a defensive situation. Once offensive momentum is regained, the more aggressive up-and-back system should be resumed.

Rotation

The third method of court coverage is the rotation system. Specific areas of responsibility are not delineated. The objective of rotation is simply to fill a void on the court. When one player is forced to an extreme side or corner of the court, the other player moves to cover the unprotected area. Initially, rotation is a simple combination of the up-and-back and side-by-side systems. The woman plays the net most of the time, but occasionally moves back to the side-by-side position to defend against the smash. As game experience increases, the woman player may rotate to play any position on the court, including the backcourt position.

The woman's role in mixed doubles is not a reticent one. Her responsibilities challenge her skill.

Partnerships With A Plus

BETTY W. TEVIS

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For a winning doubles partnership, the following ingredients are necessary: two players and a knowledge of doubles systems. There are three doubles systems—up-and-back, side-by-side, and in-and-out. Many badminton players use the up-and-back or side-by-side system because they do not understand who is responsible for shots in the in-and-out, or combination, system. The chart below describes the players' responsibilities in the situations which occur in the doubles systems.

	<i>Up-and-Back</i>	<i>Side-by-Side</i>	<i>In-and-Out</i>
DURING SERVICE			
SERVER	Serves adjacent to the intersection of short service line with center line	Serves adjacent to the intersection of short service line with center line	Serves adjacent to the intersection of short service line with center line
SERVER'S PARTNER	Stationed about two feet in front of doubles back service line, straddling center line	Stationed in center of her side of court	Stationed about two feet in front of doubles back service line, straddling center line
RECEIVER	Stationed approximately two feet behind short service line, two to three feet from center line	Stationed approximately two feet behind short service line, two to three feet from center line	Stationed approximately two feet behind short service line, two to three feet from center line

	<i>Up-and-Back</i>	<i>Side-by-Side</i>	<i>In-and-Out</i>
RECEIVER'S PARTNER	Stationed about two feet in front of doubles back service line, next to center line	Stationed in center of her side of court	Stationed about two feet in front of doubles back service line, next to center line
AFTER SERVICE			
SERVER	Moves to center net, approximately one foot in front of short service line	Moves to center of court from which service is executed	If short service, moves to center of net, approximately one foot in front of short service line; if long or driven service, moves to center of court from which service is executed
SERVER'S PARTNER	Remains two feet in front of doubles back service line, straddling center line	Remains in center of her side of court	If short service, remains two feet in front of doubles back service line, straddling center line; if long or driven service, moves to center of her side of court
RECEIVER	Moves to center net, approximately one foot in front of short service line	Moves to center of her receiving court	If short return, moves to center of net, approximately one foot in front of short service line; if long return, moves to center of her receiving court

	<i>Up-and-Back</i>	<i>Side-by-Side</i>	<i>In-and-Out</i>
RECEIVER'S PARTNER	Remains two feet in front of doubles back service line, straddling center line	Remains in center of her side of court	If short return, remains two feet in front of doubles back service line, straddling center line; if long return, moves to center of her receiving court

DURING PLAY

DEEP CLEAR BY OPPONENT	Taken by back player	Taken by player on that side of court	If in up-and-back position, taken by back player, up player moves to center of opposite court and players take side-by-side positions; if in side-by-side position, taken by player on that side
DRIVE OR SMASH DOWN SIDE OF COURT BY OPPONENT	Taken by back player	Taken by player on that side of court	If in up-and-back position, taken by back player, up player moves to center of opposite court and players take side-by-side positions; if in side-by-side position, taken by player on that side

	<i>Up-and-Back</i>	<i>Side-by-Side</i>	<i>In-and-Out</i>
DROP SHOT BY OPPO- NENT	Taken by up player	Taken by player on that side of court	If in up-and-back position, taken by up player and players remain in up-and-back posi- tion until next clear or drive; if in side-by-side position, taken by player on that side who moves to center of net approximately one foot in front of short service line, partner moves to center back position
CROSS- COURT OR HAIRPIN NET SHOT BY OPPO- NENT	Taken by up player	Taken by player on that side of court	If in up-and-back position, taken by up player, and players remain in up-and-back posi- tions until next clear or drive; if in side-by-side positions, player who hit original drop shot should have moved to net to take re- turn net flight while partner moves to center back position.
CLEAR OR DRIVE BY PLAYER	Returns to cen- ter net if up player or center back if back player	Returns to cen- ter of her side of court	If in up-and-back position, moves to side-by-side position; if in side-by-side position, remains in that position

	<i>Up-and-Back</i>	<i>Side-by-Side</i>	<i>In-and-Out</i>
CLEAR OR DRIVE BY PARTNER	Remains in her position	Remains in her position	Moves to or remains in side-by-side position, moving to court opposite partner.
SMASH BY PLAYER	Returns to center net if up player or center back if back player	Returns to center of her side of court	If in up-and-back position, remains in that position; if in side-by-side position, moves to center back position as partner moves to net
SMASH BY PARTNER	Remains in her position	Remains in her position	If in up-and-back position, remains in that position; if in side-by-side position, moves to net position as partner moves to center back position
OVERHEAD DROP BY PLAYER	Returns to center net if up player or center back if back player.	Returns to center of her side of court	If in up-and-back position, remains in that position; if in side-by-side position, moves to center net position as partner moves to center back
OVERHEAD DROP BY PARTNER	Remains in her position	Remains in her position	If in up-and-back position, remains in that position; if in side-by-side position, moves to center net position as partner moves to center back

A Decade of Research

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BETTY R. HAMMOND

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Annotated Bibliography from *Research Quarterly*

Instructional Methods

BELL, VIRGINIA LEE. "Augmented Knowledge of Results and its Effect upon Acquisition and Retention of a Gross Motor Skill." *Research Quarterly* 39(March 1968), 25-30.

The badminton long serve was practiced 20 times daily for eight days by 78 college students. Four different methods of using knowledge of results were presented and the subjects were randomly divided into four groups according to the method used. Subjects in the variable groups were told the error on each trial and asked to try to correct that error on the next trial. Subjects in the quantitative group were told the direction of the common error for 20 trials and were asked to attempt to correct that error on the 20 trials the following day. With the aid of a chart showing the landing point of each serve, the subjects in the qualitative group were asked to determine and correct the most common error of the 20 trials. A control group practiced 20 long serves each day.

The conclusion was that augmented knowledge does not further affect the acquisition or retention of a skill at the beginning level of skill when sufficient knowledge of results is provided in the task.

BURDESHAW, DOROTHY; SPRAGENS, JANE E.; and WEIS, PATRICIA A. "Evaluation of General versus Specific Instruction of Badminton Skills to Women of Low Motor Ability." *Research Quarterly* 41(Dec. 1970), 472-477.

In this test, 106 subjects were divided into three groups: The first group had participated in a basic skills course prior to badminton instruction. The second group was enrolled in badminton for the first time. The third group, prior to badminton

instruction, was participating in another sport. Results showed no significant difference between the groups on badminton skill, and the theory of specificity in learning motor skills was supported. FOX, MARGARET C. and YOUNG, VERA P. "Effect of Reminiscence on Learning Selected Badminton Skills." *Research Quarterly* 33(Oct. 1962), 386-394.

The effects of varying lengths of instructional periods and non-practice periods on reminiscence in badminton were investigated. At Parsons College 68 women students who enrolled in service classes were used as subjects. Reminiscence occurred in the wall volley skill, but did not occur in the short serve skill. The longer period of instruction did not contribute significantly to long-term retention of the wall volley.

GRAY, CHARLES A. and BRUMBACH, WAYNE B. "Effects of Daylight Projection of Film Loops on Learning Badminton." *Research Quarterly* 38(Dec. 1967), 562-569.

Sixty male undergraduates were taught badminton during a period of 30 classes. In 2 of the 4 classes, instruction was supplemented by viewing homemade loop films of seven basic strokes and loops of singles and doubles play. Subjects viewed the films twice at each class meeting during the second through fifth weeks. Only those with a pronounced skill deficiency were required to view the films during the seventh and eighth weeks. Results showed that those viewing loop films learned the skills faster than the other groups. Conclusion drawn was that using loop films facilitated learning.

Related Factors

PYECHA, JOHN. "Comparative Effects of Judo and Selected Physical Education Activities on Male University Freshman Personality Traits." *Research Quarterly* 41(Oct. 1970), 425-431.

At the University of North Carolina 149 male freshmen were used to compare the effects of three physical education courses on specific personality traits. The classes consisted of (1) eight weeks of Judo I followed by eight weeks of Judo II; (2) eight weeks of handball followed by eight weeks of volleyball; and (3) eight weeks of badminton followed by eight weeks of basketball. Personality trait measures obtained by Cattell's Sixteen Personality Factor Questionnaire indicated that subjects enrolled in judo became more warm-hearted, easy going, and participating than did the other subjects.

THORPE, JOANNE. "Intelligence and Skill in Relation to Success in Singles Competition in Badminton and Tennis." *Research Quarterly* 38(March 1967), 119-125.

The intelligence and skill of college women in relation to their success in tennis or badminton round-robin singles competition were investigated. A total of 379 subjects, rated on the basis of a skills test, were divided into leagues of 8 to 11 players each. The coefficients of correlation were .65 between skill and success in badminton and .60 between skill and success in tennis. Coefficients of almost zero were found between intelligence and success.

**Bibliography Compiled from Completed Research in Health,
Physical Education, and Recreation**

Instructional Methods

- AMES, EVELYN E. "A Comparison of Two Methods of Teaching Badminton Skills." Master's thesis, Washington State University, 1963.
- ANZALONE, CHARLOTTE B. "A Manual for Teaching Badminton to Beginners and Intermediates." Master's thesis, State University of Iowa, 1963.
- BELL, ROBERT D. "The Use of Music as an Aid in the Teaching of Selected Badminton Skills." Master's thesis, University of Oregon, 1965.
- BRACKEN, DOLORES. "The Values of College Coeducational Badminton." Master's thesis, Springfield College, 1964.
- BROWN, DULCIE PATRICIA. "The Effect of Augmenting Instruction with an Improvised Teaching Aid for College Women in Learning Selected Badminton Skills." P.E.D. dissertation, Indiana University, 1969.
- CARTER, GINGER KELLEY. "A Study of the Relationship Between Specific Conditioning Exercises and Selected Skills in Badminton and Archery of Freshmen Women Students Enrolled in Physical Education Classes at Amarillo College in Amarillo, Texas." Master's thesis, Texas Woman's University, 1966.
- DONAGHE, SHEILA JANELL. "The Effect of a Ten-Minute Period of Progressive Rope Jumping Exercise on Certain Elements of Physical Fitness and on Badminton Achievement of College Women." Master's thesis, University of Washington, 1963.
- GASSON, IVO S.H. "An Experiment To Determine the Possible Advantages of Utilizing Instant Television for University Instruction in Badminton Classes." Master's thesis, University of Washington, 1967.
- McLELLAN, MARY I. "A Study of the Use of Music as an Aid in Teaching the Badminton Serve." Master's thesis, University of Iowa, 1964.

- MILLER, SUSAN ELIZABETH. "The Relative Effectiveness of High School Badminton Instruction when Given in Two Short Units and One Continuous Unit Involving the Same Total Time." Master's thesis, University of Washington, 1964.
- NEUMAN, BONNIE J. "The Effect of a Self-Instructional Program of Badminton Rules on the Knowledge and Playing Ability of Beginner Badminton Players." Master's thesis, University of North Carolina, 1965.

Tests and Measurement

- DAVIS, PHYLLIS ROSANNA. "The Development of a Combined Short and Long Badminton Service Skill Test." Master's thesis, University of Tennessee, 1968.
- GREINER, MARILYN R. "Construction of a Short Serve Test for Beginning Badminton Players." Master's thesis, University of Wisconsin, 1964.
- HICKS, JOANNA VIRGINIA. "The Construction and Evaluation of a Battery of Five Badminton Skill Tests." Ph.D. dissertation, Texas Woman's University, 1967.
- JOHNSON, ROSE MARIE. "Determination of the Validity and Reliability of the Badminton Placement Test." Master's thesis, University of Oregon, 1967.
- WALKUP, MARY J. "The Predictability of Success in Bowling and Badminton." Ph.D. dissertation, University of Iowa, 1966.
- WASHINGTON, JEAN. "Construction of a Wall Test for the Badminton Short Serve, and the Effect of Wall Practice on Court Performance." Master's thesis, North Texas State University, 1968.

Physiology

- BARTEE, BARBARA A. "The Effect of Applications of the Principle of Overload on the Development of Skill." Ph.D. dissertation, University of Southern California, 1965.
- RAISTERS, LUDMILA NOVICKIS. "Badminton as a Cardiovascular Stressor." Master's thesis, University of California at Los Angeles, 1968.
- WERTZ, CAROL A. "Telemetered Heart Rates of College Women in Physical Education Classes." Master's thesis, Temple University, 1967.

Motor Learning

- CRANSTON, VIRGINIA AMES. "A Study of the Relationship of Reaction Time, Movement Time, and Visual Tracking to Performance in Badminton." Master's thesis, Smith College, 1967.

- DANIELS, DIANE. "Transfer of Training and Retroactive Inhibition Existent in the Learning of a Selected Tennis and Badminton Skill." Master's thesis, North Texas State University, 1968.
- HACKETT, LAYNE, CLAIRE. "A Study of the Effect of Form on Skill in Badminton." Master's thesis, University of California, 1963.
- HARRIS, DORIAN E. "The Effect of Selected Agility Activities on Badminton Playing Abilities of Women at the University of Oregon." Master's thesis, University of Oregon, 1963.
- O'CONNOR, PATRICIA T. "A Study of Speed and Skill in Relation to Success Achieved by College Women Engaged in Badminton Singles Competition." Ph.D. Dissertation, Texas Woman's University, 1965.
- TERGERSEN, RUTH L. "The Relationship of Selected Measures of Wrist Strength, Vision, and General Motor Ability to Badminton Playing Ability." Master's thesis, University of North Carolina, 1964.
- TETREAULT, EDWIN H. "A Mechanical Analysis of Two Badminton Serves." Master's thesis, Springfield College, 1964.

Physical Fitness

- STERLE, MARY J.P. "The Relative Effectiveness of Four Activity Courses on the Development and Maintenance of Physical Fitness in College Freshmen Women." P.E.D. dissertation, Indiana University, 1963.

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Books

- AINSWORTH, DOROTHY, et al., eds. *Individual Sports for Women*. 4th ed. W.B. Saunders Co., W. Washington Sq., Philadelphia, Pa. 19105. 1963.
- American Badminton Association Handbook*. Virginia Lyon, executive secretary, ABA, 1330 Alexandria Dr., San Diego, Calif. 92107. \$2.00/year.
- American Badminton Association Rulebook*. Lester Hilton, 15 Tanglewood Dr., Cumberland, R.I. 02864.
- BADMINTON ASSOCIATION OF ENGLAND. *Know the Game—Badminton*. Sportshelf, Box 634, New Rochelle, N.Y. 10800. 40 pp. \$.75.
- BADMINTON ASSOCIATION OF ENGLAND. *Notes for Badminton Coaches*. 81A High St., Bromley, Kent, England. 1970.
- BARNES, MILDRED J., et al. *Sports Activities for Girls and Women*. Appleton-Century-Crofts, 440 Park Ave. S., New York, N.Y. 10016. 1966.
- BLOSS, MARGARET VARNER. *Badminton*. 2d ed. William C. Brown Co., 131 S. Locust St., Dubuque, Iowa 52003. 1971.
- BROER, MARION, et al. *Individual Sports for Women*. Philadelphia: W.B. Saunders Co., 1971.
- BROWN, Edward. *The Complete Book of Badminton*. Stackpole Books, Cameron & Keller Sts., Harrisburg, Pa. 17105. 1969.
- DAVIDSON, KENNETH R. and GUSTAVSON, LELAND R. *Winning Badminton*. Ronald Press Co., 79 Madison Ave., New York, N.Y. 10010. 1964.
- DAVIDSON, KENNETH R. and SMITH, LENORE C. *Badminton*. Sterling Publishing Co., 419 Park Ave., S., New York, N.Y. 10016. 1961.
- DAVIS, PAT. *Badminton Complete*. A.S. Barnes & Co., Forsgate Dr., Cranbury, N.J. 08512. 1967.
- DOWNEY, J.C. *Better Badminton for All*. Pelham Books, 26 Bloomsbury St., London, England. 1969.

- FORGIE, HUGH. *You Can Play Badminton*. Cortland Racket Division, Cortland, N.Y. 13045. \$.25.
- GREGORY, DOUGLAS and WEBB, GERALD. *Teaching Badminton*. BOA Type, 203 Oswald, Courtwood Lane, Addington, Surrey, England, 1970.
- Handbook of the International Badminton Federation*. 53 Westwood Hill, London SE 23, England. 250 pp. \$.40 postpaid.
- LIFETIME SPORTS EDUCATION PROJECT. *Ideas for Badminton Instruction*. AAHPER, 1201 16th St., N.W., Washington, D.C. 20036. 1967.
- MILLER, DONNA MAE and LEY, KATHERINE. *Individual and Team Sports for Women*. Prentice-Hall, Inc., Englewood Cliffs, N.J. 07632. 1955.
- PELTON, BARRY C. *Badminton*. Prentice-Hall, Englewood Cliffs, N.J. 07632. 1971.
- POOLE, JAMES. *Badminton*. Goodyear Publishing Co., 15115 Sunset Blvd., Pacific Palisades, Calif. 90272. 1969.
- ROGERS, WYNN. *Advanced Badminton*. Dubuque, Iowa: William C. Brown, Co., 1970.
- SPORTS ILLUSTRATED STAFF. *Sports Illustrated Book of Badminton*. J.B. Lippincott Co., E. Washington Sq., Philadelphia, Pa. 19105. 1967.
- TYLER, JO ANN, ed. *Selected Tennis-Badminton Articles*. AAHPER, 1201 16th St., N.W., Washington, D.C. 20036. 1970.
- VANNIER, MARYHELEN and POINDEXTER, HALLY BETH. 2d ed. *Individual and Team Sports for Girls and Women*. Philadelphia: W.B. Saunders Co., 1968.

Magazines

- The Badminton Gazette*. H.A.E. Scheele, ed., 4 Madeira Ave., Bromley, Kent, England. \$1.40-6 issues.
- Badminton U.S.A.* (formerly *Bird Chatter*). Beatrice Massman, ed., 333 Saratoga Rd., Buffalo, N.Y. 14226. \$3.00/year.

Free Materials (in quantity for classes)

- Badminton and Tennis Strokes*. Ashaway Products, Inc., Ashaway, R.I. 02804. 24 pp.
- Guide to Better Badminton*. Ashaway Products, Inc., Ashaway, R.I. 02804. 16 pp.

Equipment

- HICKS, VIRGINIA. "Purchasing and Care of Badminton Equipment." *DGWS Tennis-Badminton Guide*. 1966-1968.

Evaluation

- HOOKS, EDGAR W., JR. "Hooks' Comprehensive Knowledge Test in Selected Physical Education Activities for College Men." *Research Quarterly* 37 (Dec. 1966), 506-514.
- McCUTCHEON, JANET EMERY. "Skill Tests." *DGWS Tennis-Badminton Guide*, 1962-1964.
- NEUMAN, BONNIE. "Knowledge Challengers." *DGWS Tennis-Badminton Guide*, 1968-1970.
- WEISER, JEANETTE. "College Testing Program for Beginning Badminton." *DGWS Tennis-Badminton Guide*, 1970-1972.

History

- BROWN, BETTY. "The American Badminton Association Competitive Badminton and You." *DGWS Tennis-Badminton Guide*, 1970-1972.
- RICHARDSON, DONALD. "History and Function of the American Badminton Association." *DGWS Tennis-Badminton Guide*, 1966-1968.

Skills and Strategy

- DAY, JUNE. "Strategy and Tactics in Ladies' Doubles." *DGWS Tennis-Badminton Guide*, 1964-1966.
- GAZETTE, C. PEGGY. "Creating the Opportunity to Score." *DGWS Tennis-Badminton Guide*, 1964-1966.
- LANDTROOP, PEGGY. "Placement, Strategy, and Return of Serve." *DGWS Tennis-Badminton Guide*, 1966-1968.
- LANDTROOP, PEGGY. "Advanced Badminton Techniques." *DGWS Tennis-Badminton Guide*, 1968-1970.
- POOLE, JIM. "Mechanics of Overhead Badminton Strokes." *DGWS Tennis-Badminton Guide*, 1970-1972.

Teaching Techniques

- BROWN, D. PATRICIA. "Use of the Suspended Shuttle in Developing Overhead Strokes." *DGWS Tennis-Badminton Guide*, 1970-1972.
- BURTON, VERNON G. "A Teaching Progression That Works." *DGWS Tennis-Badminton Guide*, 1964-1966.
- COLVIN, VALERIE and LESTER, MIGNON. "Badminton Skills Through Circuit Training." *DGWS Tennis-Badminton Guide*, 1968-1970.
- DEVLIN, J. FRANK. "Badminton from the Beginning." *Bird Chatter*, Nov.-Dec. 1965.
- DEVLIN, J. FRANK. "Badminton from the Beginning." *Bird Chatter*, March-April 1966.

- FLANAGAN, P.M. "Combination Drills for Badminton." *Athletic Journal*. Nov. 1969.
- GALLEY, JEANNE C. "Techniques for Advanced Badminton Students." *DGWS Tennis-Badminton Guide*. 1966-1968.
- LYON, M. JOAN. "Fundamental Principles of Movement Applied to Badminton." *DGWS Tennis-Badminton Guide*. 1966-1968.
- MCPHERSON, FRANCES A. "Badminton-Tennis Transition." *DGWS Tennis-Badminton Guide*. 1964-1966.
- ODENEAL, B. "Fundamental Badminton." *Scholastic Coach*. Nov. 1964.
- RIGDEN, JEAN. "Best Foot Forward." *DGWS Tennis-Badminton Guide*. 1962-1964.
- ROBINSON, PATRICIA S. "Teaching the Different Beginner in Badminton." *DGWS Tennis-Badminton Guide*. 1968-1970.
- ROWLANDS, JEANNE L. "Situational Awareness—Can it Be Taught?" *DGWS Tennis-Badminton Guide*. 1964-1966.
- WOLF, H.H. "Badminton Drills." *Athletic Journal*. Feb. 1965.

Tournaments and Officiating

- American Badminton Association Official Handbook*. A.B.A., 1330 Alexandria Dr., San Diego, Calif. 92107. 100 pp.
- BUNN, JOHN W. *The Art of Officiating Sports*. 2d ed. Prentice-Hall, Englewood Cliffs, N.J. 07632, 1957.
- FARRELL, PAT. "So You're the Tournament Chairman." *DGWS Tennis-Badminton Guide*. 1970-1972.

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Prices listed are subject to change. Numbers in parentheses refer to film distributors listed. Evaluation of films: E—excellent, VG—very good, G—good.

16 mm Films

All England World Championship Singles Finals. 60 min., 1967, sd., b&w. Rental \$25 (7). Exciting final match between Mrs. Judy Hashman (USA) and Miss Noriko Takagi (Japan). Film is accompanied by a short written preface describing the points of special interest to look for in the film. E.

Badminton Fundamentals. sd., b&w. (4). Fundamental skills and rules of badminton demonstrated by expert and novice players. How to serve, forehand and backhand shots, and other important playing techniques. G.

Flying Feathers. 10 min., sd., b&w. (3). A regulation men's singles game of badminton between two top-ranked professional players, Ken Davidson and Hugh Forgie. Andre Baruch keeps score and gives running comments concerning strokes used, footwork, and strategy. Some trick shots. G.

Fundamentals of Badminton. 12 min., sd., b&w. Sale \$60; Rental \$5 (two days). (1). Producer, George B. Pearson, University of Alabama. Technical Advisor, Jim Poole. Basic fundamentals of badminton are demonstrated by some of the outstanding players in the U.S. Skills are demonstrated by both right- and left-handed players in slow motion and at regular speed. Also included are actual game situations with emphasis on strategy for singles, doubles, and mixed doubles. G.

Let's Play Badminton. 1947. 15½ min., sd., b&w. (5, 6). Ken Davidson explains the game to a family and demonstrates necessary skills. The film includes singles and doubles courts, net height, description of equipment, basic rules, grips, forehand and

backhand strokes, drives, drop shots, smash, net flights, around-the-head strokes, footwork, and some strategy. Some strokes are in slow motion; all strokes are repeated several times and are in excellent form. This film is sanctioned by the American Badminton Association, and was made especially for instructional use. VG.

Lifetime Sports in Education. 17 min., 1967, sd., color. Sale: \$80. (8). Loan (10). Shows how teachers may extend instruction in the five lifetime sports of archery, bowling, golf, tennis, and badminton. Working with the limited facilities found in most schools, it demonstrates techniques of large group instruction, utilization of gymnasiums and playing fields, improvised materials, and innovative teaching aids.

Play Badminton with Wong Peng Soon. 18 min., 1958, sd., b&w. Rental: Free. (9). One of the greatest players of Malaysia, Wong Peng Soon, the wizard of badminton, demonstrates the basic fundamentals of the game, from choosing the racket to how each stroke is executed. Slow motion photography brings out the finer points. G.

Filmstrip

Beginning Badminton Series. 1950. Filmstrips, color, with records.

(2). Six filmstrips with explanations for each frame on accompanying records. The filmstrips cover: (1) the game, (2) the rules simplified, (3) the service stroke, (4) the overhead stroke, (5) the forehand stroke, and (6) the backhand stroke. The content and narration appear both in *Badminton Instructor's Guide*, and the *Badminton Handbooks* by Davidson and Smith. E.

Film Loops

The following loops were developed in consultation with Jim Poole, San Fernando Valley, State College, Northridge, California.

Grip and Service. (12). Cat. No. 91-0018/1 Cartridged Super 8-\$22.95. The grip is clearly shown, as are the basic skills of serving the deep service for singles play and the short service for doubles play. Legal service is also demonstrated.

Overhead Forehand Strokes. (12). Cat. No. 91-0034/1 Cartridged Super 8-\$22.95. The loop features instruction on the fundamental body mechanism of all overhead strokes. Specific techniques of hitting the lob, drop, and smash are demonstrated in slow motion with freezes of contact. Game applications at the conclusion of each particular stroke draw attention to common strategy.

Overhead Backhand Strokes. (12). Cat. No. 91-0042/1 Cartridged 8—\$22.95. The same general format used in demonstrating the overhead forehand stroke is repeated here with the backhand grip and fundamentals of the backhand lob, drop, and smash.

Underhand Net Strokes. (12). Cat. No. 91-0059/1—\$22.95. Forehand and backhand underhand lobs and drops are demonstrated from net positions. Emphasis is on footwork, body positions, and racket-hand and wrist positions. Game applications assist in demonstrating strategy.

Drives and Around-The-Head Strokes. (12). Cat. No. 91-0067/1. A complete skill analysis of forehand and backhand drives is presented. The more complex and deceptive around-the-head stroke is demonstrated with emphasis on weight transfer and hand and racket positioning. Game applications are presented.

Footwork. (12). Cat. No. 91-0075/1. \$22.95. Sharp reflexes and the ability to move rapidly from one position to another are critical to the badminton player. The most modern techniques of efficient movement are presented with slow-motion close-ups of footwork.

The following series of loop films was produced with Dr. James Breen of George Washington University, Washington, D.C., acting as consultant. The demonstrators are Jim Poole, Margaret Varner, James Breen, and Janette Breen.

All of these loops are in color. Each loop is accompanied by a booklet amplifying the film content. Regular and slow motion as well as stop action are used in each loop to aid in analyzing various techniques. The complete set is available from The Athletic Institute for \$234.

Grip And Cocking. (11) Code No. C-1 Cartridged Super 8—\$18.95.

Footwork. (11). Code No. C-2 Cartridged Super 8—\$18.95.

High Deep Serve. (11) Code No. C-3 Cartridged Super 8—\$18.95.

Low Short Serve. (11) Code No. C-4 Cartridged Super 8—\$18.95.

Drive Serve. (11) Code No. C-5 Cartridged Super 8—\$18.95.

Flick Serve. (11) Code No. C-6 Cartridged Super 8—\$18.95.

Forehand Overhead Shots—Defensive Clear, Attacking Clear. (11) Code No. C-7 Cartridged Super 8—\$18.95.

Forehand Overhead Shots—Smash, Drop. (11) Code No. C-8 Cartridged Super 8—\$18.95.

Backhand Overhead Shots—Defensive Clear, Attacking Clear. (11) Code No. C-9—\$18.95.

Backhand Overhead Shots—Smash, Drop. (11) Code No. C-10—\$18.95.

Drive Shots; Underhand Clear Shots. (11) Code No. C-11 Cartridged Super 8—\$18.95.

Net Shots. (11) Code No. C-12 Cartridged Super 8—\$18.95.

Around the Head Shots—Clear, Smash, Drop. (11) Code No. C-13
Cartridged Super 8—\$18.95.

Bulletin Board Materials

Badminton Technique Charts. Washington, D.C. 20036: AAHPER, 1201 16th St., N.W. 12 charts. \$1.50. Cover courts and equipment, forehand and backhand grips and serves, forehand drive, backhand drive, overhead clear stroke, low clear stroke, smash and drop shots, net shots, flight patterns, readiness positions for court play, and types of doubles play.

Badminton—Courts, Scoring, Strokes. Normal, Ill. 61761: Easy Post, Box 425. \$1.50. Attractive and informative display stresses scoring in both doubles and singles, the difference between a doubles and singles court, and the need to use a variety of strokes.

Film Distributors

- (1) All American Productions and Publishers, c/o George B. Pearson, Dept. of Health, Physical Education and Recreation, Univ. of Alabama, University, Ala. 35486
- (2) Athletic Institute, 805 Merchandise Mart, Chicago, Ill. 60654
- (3) Frank Church Films, 1815 Beverly Blvd., L. A., Calif. 90057
- (4) Coronet Instructional Films, 65 E. South Water St., Chicago, Ill. 60601
- (5) James B. Dick Co., 1825 Beverly Blvd., L. A., Calif. 90057
- (6) General Sportcraft Co., Ltd., 140 Woodbine, Bergenfield, N.J. 07621
- (7) J. Frank Devlin, RFD #2, Dolfield Rd., Owings Mills, Md. 21117
- (8) AAHPER, 1201 16th St., N.W., Washington, D.C. 20036
- (9) Educators Guide to Free Film, P.O. Box 487, Spring Green, Wis. 53588
- (10) State Directors of Health, Physical Education, and Recreation, State Department of Education, in all states.
- (11) Athletic Institute, 805 Merchandise Mart, Chicago, Ill. 60654
- (12) Ealing Film-Loops, 2225 Mass. Ave., Cambridge, Mass. 02140

Note: Any Ealing film or set of films may be ordered on Super 8 Reels for use with the Kodak Ektographic Projector by replacing the final /1 of the Catalog number with a /3; these reels also come complete with case and film notes. Ealing film-loops are available in Regular 8 cartridges by special order in quantities of not less than 50 prints of each film. All formats are the same price. The complete 6 Loop Set is \$137.70. Cat. No. 89-3644/1.)

BADMINTON STUDY QUESTIONS

1970-72

Revised by the Badminton Examinations and Ratings Committee.

PART I

Directions

Select the one item which best answers each question. Assume no conditions exist other than those stated. Team A is always serving. Team B is always receiving.

1. Which team has the option of setting a game?
 - A. Serving team
 - B. Receiving team
 - C. Either the serving or receiving team
 - D. The team that received first in the game
2. Which team serves first at the beginning of a game?
 - A. Team winning the toss serves first in the first game.
 - B. Team that received first in a game serves first in the next game.
 - C. Team winning the first game serves first in the second game.
 - D. Team that loses the first game serves first in the second game.
3. The "in" side refers to which team?
 - A. The serving team
 - B. The receiving team
 - C. The team that is ahead in points
 - D. The first team to serve in a game
4. When should a player in a singles match serve from the right service court?
 - A. When side out occurs
 - B. When play resumes after suspension of play
 - C. When a game has been set
 - D. When the score is 12-13
5. What is the proper procedure when an umpire is calling a doubles match?
 - A. Call score then first service before each point.
 - B. Call the score only.
 - C. Call score then first service only at the time it occurs.
 - D. Call first service and then the score for each point.

6. In which situation would the umpire not call a fault?
 - A. The server swings and misses the shuttle.
 - B. The server swings and tips the shuttle with her racket.
 - C. The server takes a step as she swings at the shuttle.
 - D. A player from the opponent's court falls under the net and into the playing area.
7. Who is responsible for checking the correct flight of a shuttle?
 - A. Linesman
 - B. Referee
 - C. Service court judge
 - D. Umpire
8. It is the second game of a ladies singles match. When do players change ends of the court?
 - A. Score is 8-4.
 - B. Score is 8-all.
 - C. Score is 6-3.
 - D. Score is 11-6.
9. What is the proper call made by the umpire to indicate "match point" or "game point"?
 - A. 14-10 game point; do not repeat again.
 - B. 14-10 game point; repeat each time the player in the lead serves.
 - C. 14, game point, 10; do not repeat again.
 - D. 14, game point, 10; repeat each time the player in the lead serves.
10. What is the proper procedure if the shuttle touches the top of the net?
 - A. If during a rally, there is a fault for the player who hit the shuttle into the net.
 - B. If on the serve, "let" is called.
 - C. If during a rally, play continues.
 - D. If on the serve, it is a fault by the server.
11. How should the names of players in a doubles game be listed on the score sheet?
 - A. The first server is listed first and the receiving team is listed in any order.
 - B. The first receiver is listed first and the serving team is listed in any order.
 - C. Any order is acceptable.
 - D. The first server on both teams is listed first.
12. The score is 9-4 in the third game of a singles match when it is discovered players did not change ends of the court. What is the proper action?

- A. Change ends as soon as the error is discovered; drop all points won after players should have changed.
 - B. Change ends as soon as the error is discovered, existing score stands.
 - C. Do not change ends; drop all points won after players should have changed.
 - D. Do not change ends; existing score stands.
13. In which situation would the umpire not call a "let?"
- A. A spectator walks between two courts during a rally.
 - B. A shuttle from a nearby court travels into the playing area.
 - C. A spectator walks across the back of the playing area.
 - D. A player slips to the floor and is unable to return the shuttle.
14. What is the significance of a double vertical line drawn through both scoring columns on a score sheet?
- A. End of the game
 - B. Game set
 - C. Beginning of the game
 - D. Service over
15. What are the duties of the roving service judge?
- A. Call faults made by the receiver during the serve
 - B. Call a "let" for each service fault committed by the server
 - C. Call a "let" for the first service fault observed and fault if the player continues to commit the fault
 - D. Call a fault for each service fault committed by the server
16. When has the serve been delivered?
- A. As soon as the server begins her swing at the shuttle
 - B. As soon as the server contacts the shuttle
 - C. As soon as the shuttle crosses the net
 - D. As soon as the receiver contacts the shuttle
17. A linesman watches the shuttle fall close to the line and calls "out" and then decides the shuttle hit the line. What is the proper action?
- A. Linesman should say nothing as she has already made her call.
 - B. Linesman should wait to see who wins the next rally and then change her call.
 - C. Linesman should correct the call before the next service.
 - D. Linesman should never change a call once it is made.
18. What is the first notation made on a score sheet in a doubles match?
- A. Black-Smith/ 0
Brown-Jones

- B. Black-Smith/ i
Brown-Jones/
 - C. Black-Smith/ 0
Brown-Jones/
 - D. Black-Smith/ 0
Brown-Jones/
19. A player on team A serves out of turn, her team wins the rally and then the mistake is discovered before the next serve is made. What is the umpire's decision?
 - A. Players correct position, point stands.
 - B. Players correct position, "let" is declared.
 - C. Players do not correct position, point stands.
 - D. Players do not correct position, point is not scored, loss of serve results.
 20. The receiver was not looking at her opponent when the server hit a quick serve. The umpire awarded a point; however, the receiver claims she was not ready for the serve. What is the decision?
 - A. Server scores a point; receiver must play the shuttle when served.
 - B. Server loses service; it is a fault to serve before opponent has opportunity to get ready.
 - C. Service is repeated, whether receiver swung at served shuttle or not.
 - D. Server scores a point is receiver swung at shuttle as she is considered to be ready.
 21. The umpire calls a fault against Player B who does not agree with the decision and appeals the call. What is the correct procedure?
 - A. The appeal is ignored as it is considered unsportsmanlike to question the call of an umpire.
 - B. The appeal is noted, the remainder of the game is played, the referee is consulted to determine who is correct.
 - C. The umpire's decision must be made before the next service. If it is a question of law, the referee should be consulted.
 - D. An additional point is given Player A for B's interference with the call.
 22. During a rally the receiver twists her ankle and falls. She requests permission to discontinue play long enough to have the ankle taped. What is the decision?
 - A. Play continues.
 - B. The referee must be consulted before play is suspended.

- C. The service court judge must be consulted before play is suspended.
 - D. The umpire suspends play.
23. Which official should instruct the linesman and service court judge of their duties?
- A. Referee
 - B. Umpire
 - C. Instructions unnecessary
 - D. Either the referee or umpire
24. What instructions should the umpire give the players regarding calling "no shots" during a match?
- A. Tell players term is used only by the umpire.
 - B. Ask the players to call all "no shots."
 - C. Ask the players to call "no shots" missed by the umpire.
 - D. Ask the players *not* to call "no shots."

PART II

Directions

Each of the following statements presents a situation which would require one of the decisions listed below. Assume no conditions exist other than those stated. Team A is always serving. Team B is always receiving.

- | | |
|----------|-------------------|
| A. Point | C. Second service |
| B. Let | D. Side out |
1. During a doubles game, second service, the server hits a long serve very close to the back boundary line. The receiver steps outside the court to play the shuttle. She hits the shuttle into the net and then indicates to the umpire that she should win the rally because the shuttle was going out-of-bounds. What is the umpire's decision?
 2. The server's partner stands in the same court as the server, second service. The receiver's return tips the net and falls out-of-bounds. What is the decision?
 3. On the first serve of a doubles game the shuttle lands in the back alley. What is the umpire's decision?
 4. The wrong player on doubles team A serves first in the second inning of a game. Team B cannot get to the shuttle during the rally and the cork falls on the line. What is the correct decision?
 5. The server in a singles game hits the shuttle out of her hand. The hand holding the shuttle is just above her waist. The receiver hits the shuttle into the net. What is the decision?

6. It is the second inning, first service of a doubles game. The server makes a fake hit at the shuttle and then hits a short serve. During the rally a player on the serving team swings and misses a shuttle that goes out-of-bounds. What is the decision?
7. During a rally in a singles game the server lets her racket follow through over the net and her opponent's racket hits the net as she is trying to play the shuttle. What is the decision?
8. On the first serve of a doubles game the shuttle travels close to the center line so the player in the left service court returns the shuttle. The serving team lets the shuttle fall to the floor in their court. What is the decision?
9. Player A slides her foot forward as she serves the shuttle in a singles game. The receiver, who was standing on the center service line when the server hits the shuttle quickly returns the shuttle to Player A's court. What is the decision?
10. Team A is serving in a doubles game, second service. The server's racket just barely contacts the feathers but gives the shuttle no forward movement. What is the decision?
11. During the rally following their first service, Team A hits the shuttle and it strikes the net and falls to the ground on Team A's side. In anticipation of returning a smash, Team B rushes toward the net, falls off balance and then hits the net with the racket. What is the decision?
12. In executing a smash, singles player A falls into the supports of the net without touching the net. Her opponent, the receiver, is unable to return the smash. What is the action of the official?
13. In a doubles game, first service, player A slings the shuttle during a rally. Player B returns the shuttle, hitting it on the shaft of the racket as she does. Player A fails to return the shuttle. What is the decision of the official?
14. In a doubles match, Team A is serving, second service. A member of Team A contacts the shuttle with the outer edge of her racket, causing the shuttle to cross the net and land in Team B's alley. What is the decision of the official?

Inquiries concerning these study questions should be directed to the Badminton Examinations and Ratings Chairman.

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ANSWERS AND RULE REFERENCES

PART I

Answer	Rule Reference
1. B	Law 7
2. C	Law 11
3. A	Law 5c
4. D	Law 13a
5. C	Tech. of Off., Calling the Match, #4
6. A	Law 18
7. B	Tech. of Off., Duties of Ref., #4
8. D	Law 8
9. B	Tech. of Off., Calling the Match, #5
10. C	Law 17
11. D	Tech. of Off., Scoring the Match
12. D	Tech. of Off., Scoring the Match
13. D	Tech. of Off., Duties of Ump., #21
14. A	Tech. of Off., Scoring the Match
15. C	Tech. of Off., Interp. #2
16. B	Law 9b
17. C	Tech. of Off., Duties of Lin., #3
18. B	Law 8
19. B	Law 12
20. D	Law 15
21. C	Law 21
22. D	Law 22c
23. B	Tech. of Off., Duties of Ump., #15
24. D	Tech. of Off., Duties of Ump., #33

PART II

Answer	Rule Reference
1. A	Law 14
2. A	Law 15
3. C	Law 9
4. B	Law 12
5. D	Law 14a
6. C	Law 14d
7. A	Law 14f, g
8. A	Law 10
9. B	Law 17
10. D	Law 18
11. C	Law 19
12. D	Law 14g
13. C	Law 14h
14. A	Law 14 (not prohibited in rules)

TECHNIQUES OF OFFICIATING BADMINTON

BADMINTON SUBCOMMITTEE Principles and Techniques of Officiating Committee

DUTIES OF THE REFEREE

In each tournament the chairman or committee in charge shall appoint a referee to act for them in regards to rules, scoring and regulating play.

The referee shall—

1. Be in complete charge of match play except for the scheduling of the time and place of matches.
2. Be thoroughly familiar with, and rigidly enforce, the official laws of badminton, and the interpretations which are a part of the laws.
3. Have the authority and responsibility to appoint and remove umpires, linesmen, and service judges.
4. See that the playing area, nets, posts, shuttles, etc., meet the requirements of the laws of badminton.
5. Be the final authority on appeal from the decision of the umpire, with authority to reverse the umpire's decision involving a point of law only. The scoring of a match can be affected only if the appeal be made to the referee before the next service is delivered.
6. Be present or available at the playing area at all times during match play, or be specifically represented by a deputy appointed by him.

DUTIES OF THE UMPIRE

The umpire has three main responsibilities: *To officiate the match for the player, to link the match with the spectators, and to score the match.*

The umpire shall—

1. Thoroughly know the laws of badminton.
2. Have the final decision on all points of fact. A player may, however, appeal to the referee on a point of law only.
3. Recognize the linesman's decision as final on all points of fact on his own line. The umpire cannot overrule him. If a linesman is unsighted, the umpire may then give a decision if he can, otherwise, a let should be played.

4. Recognize a service judge's decision as final on all points of fact in connection with the delivery of the service as set out in Service Court Judge, 2. The umpire is responsible for calling the receiver's faults.
5. Call the score distinctly and loudly enough to be heard clearly by players and spectators. Call promptly and with authority. If a mistake is made, admit it, apologize, and correct it.
6. Score the match and record points on a score pad. When a point is finished, first mark the score, then see that the server changes courts and announce score before the next service. (If the umpire possesses less than a DGWS National rating, she may ask the service court judge to keep a duplicate score.)
7. Never ask spectators about a decision or be influenced by their remarks. If a decision cannot be reached, a let should be awarded.
8. Be responsible for all lines not covered by linesmen. (If at all possible, one person should be assigned to lines which the umpire is not in a favorable position to see.)
9. Firmly control the match without being officious. Keep play flowing without unnecessary interruptions while ensuring that the laws are observed. The game is for the players.
10. Allow the game to proceed, and do not call a "fault" when a doubt arises in the mind of the umpire or service judge as to whether an infringement of the laws has occurred. (The player has benefit of the decision.)
11. Be sole judge of any suspension of play and have the right to disqualify an offender for leaving the court or delaying the game (Law 22).
12. In the absence of a referee, appoint linesmen and service judges at his discretion.

Before the Match—

13. Obtain the score pad from the referee. Enter player's position and receiver and server on the scorecard.
14. Check the net for height. See that the posts are on the lines and that tapes are correctly placed (Laws 2 and 3).
15. Ensure that the linesmen and service judges are correctly placed and know their jobs (see Linesmen and Service Court Judge).
16. Ensure that a sufficient quantity of tested shuttles (according to Law 4) is readily available for the match in order to avoid delays during play. If the players cannot agree, the umpire should have the shuttles tested; in a tournament, she should refer to the referee; in a match, the captains or referee. Once shuttles have been found to be acceptable, ensure that they are used unless circumstances alter.

Starting the Match—

17. Ensure that tossing is correctly carried out and that the winners and losers correctly exercise their options under Law 6.
18. Mark on the score pad for doubles the names of the players starting in the right-hand service courts. This enables a check to be made at any time to see whether the players are in their correct service courts. During the game, if the players get in their wrong service courts unnoticed, so that they have to stay there (Law 12), change the score pad accordingly.

During the Match—

19. See that no unnecessary delay occurs, or that the players do not leave the court without the permission of the umpire (Law 22).
20. Record the score, server, and the correct service courts of the players on the score pad if an unavoidable hold-up occurs in a match (Law 22c).
21. Call a let if a shuttle or other object not connected with the match in progress invades the court or its environs, or a spectator interferes with the players.
22. Watch for faulty serving if there is no service judge. It is difficult to detect from the chair "serving above the waist" or "racket head above the hand." If there is any doubt, caution the player and ask for a service judge.
23. If no service judge is available, see that the *server* has both feet on the floor in a stationary position inside the service court when the shuttle is struck, and that there is no feint (Law 14d and Interpretation 1).
24. See that the *receiver* has both feet on the floor in a stationary position inside the service court until the service is delivered, and that she does not move before the shuttle is struck (Laws 14e and 16).
25. Watch for double hit or faulty stroke under Law 14h. These should be immediately called by the umpire as "fault."
26. Watch for obstruction—for instance, sliding under the net; throwing the racket into the opponent's court; balking or unsighting an opponent during services (see Laws 14d, 14j, 16, 20, and Interpretation 5). Immediately call "fault, obstruction."
27. Watch for serving and receiving out of turn or from the wrong court. Law 12 should be thoroughly understood. When the rally has been completed, call "fault, service" or "fault, receiver," whichever the case may be.
28. Watch for striking of the shuttle before it crosses the net, and hitting the net with racket, person, or dress while the shuttle is in play (Laws 14f and 14g). Call "fault" immediately.

29. See that the option of "setting" is correctly exercised (Law 7).
30. See that the players change ends following each game and at the correct score in the third game (Law 8).
31. See that the winning side serves first.
32. Watch for a player interfering with the correct speed of the shuttle. The player should be warned, and the shuttle discarded if necessary.
33. On no account allow players to call "no shot," "fault," "carry," etc.; warn them if they do, as it may distract their opponents. On no occasion should the umpire use the terms "no shot," "foul," or "no." Always use the term "fault."
34. Provide for the correct interval between the second and the third games where allowed.

At the End of the Match—

35. Announce winners and scores. Sign and turn in scorecard.

Calling the Match

1. When the players have finished warming up, announce—
 - a. In a tournament:
 - 1) "final or semifinal of . . ." If neither, say nothing.
 - b. In a tournament or match:
 - 1) Names of players with country, county, or club where applicable.
 - 2) Name of the first server, and in the case of doubles, of the receiver.
 - 3) To start the match, call "love all, second service, play" in doubles; but "love all, play" in singles.
2. Always call the server's score first.
3. Singles—when a player loses his service, call "side out" followed by the score in favor of the new server.
4. Doubles—when a side starts to serve, call the score, followed by "first service." Repeat only the score until the status of serving changes. When the first server loses his service, call the score followed by "second service." Repeat only the score until both services are lost, then call "side out" followed by the score in favor of the new server, and "first service."
5. When a side reaches 14, or in the case of ladies singles, 10, call on the first occasion only "game point" or "match point." If a further game or match point occurs after setting, call it again on the first occasion. Game point or match point should always immediately follow the server's score where applicable, and precede the receiver's score.

2.	Jones/ 0 1 2 3 4 5		Jones loses the serve;
	Smith/	0	
3.	Jones/ 0 1 2 3 4 5		Smith scores 2 points;
	Smith/	0 1 2	then
4.	Jones/ 0 1 2 3 4 5	5	Smith loses the serve.
	Smith/	0 1 2	

In doubles:

The initial server for each team shall be listed first.
To indicate the completion of one service, draw a circle around the last point (number) made by the first server. This will clearly designate the point at which the second server begins her term of service.

1.	Smith-Jones/ ① 1 2 3		Smith-Jones commence serving, win 3 points, and lose the serve;
	Reed-Brown/	0	
2.	Smith-Jones/ ① 1 2 3		Reed-Brown win 2 points after obtaining the serve.
	Reed-Brown/	0 1 2	
3.	Smith-Jones/ ① 1 2 3		Reed-Brown lose the point, second serve.
	Reed-Brown/	0 1 ②	
4.	Smith-Jones/ ① 1 2 3	3	Reed-Brown win 3 more points and then lose the serve.
	Reed-Brown/	0 1 ② 3 4 5	

In setting:

1.	Smith-Jones/ 1 3		13
	Reed-Brown/	① 12 13 14	
		No Set	

Smith-Jones have option to set at 13-all, decide not to set; no set is written at the current server's score of 13. They score a point, then lose the serve.

Set 3												
Smith-Jones/ 13					13	14	1	2		16		
Reed-Brown/	11	12	13	14					1	2	3	17

Smith-Jones win a point and score is 14-all. Reed-Brown have option to set and set 3. This is written above the server's current score (14) and a line is drawn through the serving team's (Smith-Jones) scoring column. Further scoring starts at 1, etc.

DUTIES OF THE SERVICE COURT JUDGE

The service court judge shall—

1. Sit on a low chair by the net post (preferably opposite the court from the umpire) and on the same side of the net as the umpire, if circumstances permit.
2. Be responsible for seeing that the server, at the moment of striking the shuttle—
 - a. Does not have any part of the head of the racket above any part of the hand holding the racket (Law 14a).
 - b. Does not have the shuttle above his waist (Law 14a).
 - c. Has both feet in a stationary position on the floor inside the service court (Law 16).
 - d. Does not feint (Law 14d and Interpretation 1).
3. If the server does not comply with all the points in item 2 above, the service judge should immediately call "fault" loudly, and ensure that the umpire hears him. *Note:* The umpire watches the receiver.
4. Assist in keeping score is necessary.

DUTIES OF THE ROVING SERVICE JUDGE

The roving service judge shall —

1. Wear an arm band or recognizable badge.
2. Move among the courts observing the services that are being executed in each match.
3. Position himself by the net post of any match in which service faults may be occurring.
4. Upon observing a service fault call a "let." He will then warn the server and explain the nature of the fault.
5. If the server in question fails to comply with a legal serve (Duties of Service Court Judge, item 2), the roving service judge shall call a "fault."

DUTIES OF THE LINESMEN

The linesmen shall—

1. Sit on chairs in prolongation of their lines, at the ends of the court and at the side opposite the umpire.
2. Each be entirely responsible for his line. If the shuttle falls out, no matter how far, call "out" promptly in a clear, loud voice. The call should be reinforced by a hand motion *away* from the court. If the shuttle falls in, say nothing. If unsighted, inform the umpire immediately by placing his hands over his eyes.
Note: Notice where the cork of the shuttlecock lands in making a decision. A flat-angled shuttlecock may be out although the feathers are well inside the court line. Also, watch the line, not the shuttle. In watching a moving object, a stationary one may be lost. At the first indication that the shuttle may strike near your line, switch your gaze from the shuttle to the area where you expect it to land.
3. Never make a call until the shuttle has actually struck the ground outside the court.
4. If the cork touches any part of the line, it is in. Change a decision whenever necessary by voicing it before the next service.
5. If three linesmen are available, two should take a back boundary line and (in doubles) long service line each; the third, the side lines farthest from the umpire. If additional linesmen are available, they should be used according to the umpire's preference.

INTERPRETATIONS

1. When an umpire is officiating, the laws of badminton shall be enforced by him. In the absence of an umpire the players concerned shall carry out the laws, and if a violation be claimed by one side and not acknowledged by the other, a let shall be allowed. Umpires are recommended for all semifinal or final matches in any championship tournament.
2. In order to eliminate service faults in the early rounds prior to the semifinals or quarter-finals, a qualified service judge may be provided to act as a *roving* service judge. He should be provided with an arm band or recognizable badge, and the players should be informed of his presence. His duty will be to position himself by the net post of a match in question, and on observing a service fault call a let. He will then warn the server and explain the nature of the fault. If the server continues to commit an illegal service the roving service judge shall call a fault on the server.

3. If the receiver is faulted for moving before the service is delivered or for not being in the correct service court (see Laws 16 or 14c), and at the same time the server is also faulted for a service infringement (see Laws 14a, c, h, or 16) it shall be a let. If any player feints or intentionally balks his opponent, even before the delivery of the service (see Law 24d) the fault should be recorded against the player concerned.
4. Service foot faults: Clarification of Law 16.
 - a. Any forward step of either foot, or any other foot movement, must be completed and both feet must reach a stationary position on the floor prior to the start of racket motion to serve. "Start of racket motion" includes the backswing.
 - b. Part of Law 16 reads "some part of both feet of these players must remain in contact with the ground in a stationary position till the service is delivered." The following three questions were asked and it has been ruled that the points raised do not constitute a breach of the law. Accordingly, players should not be faulted for these actions.
 - (1) Does this mean that the same part of a foot must remain in contact with the ground, or could it be a different part of the same foot?
 - (2) If the back foot of a server starts with the toe and heel in contact with the ground and rises onto the toe as the service is struck, with the heel rising straight, is this in order?
 - (3) On the other hand, if the heel comes off the ground and swivels through an angle of 90 degrees, as is frequently done, which means that the part of the toe remaining in contact with the ground swivels and moves, is this correct?
5. Service terminology: Law 14d states "If before or during the delivery of the service, any player makes a preliminary feints or otherwise balks his opponent, it is a fault." Webster's Second International Dictionary defines the terms "feint" and "balk" as "a feint is an assumed or false appearance . . . a mock blow or attack," and "a balk is a failure of a competitor to jump, vault, or the like, after taking a preliminary run. . . ." The service may be regarded as started when both players have taken stationary positions in readiness to serve and to receive. From that point until the shuttle is struck by the server, Law 14d applies. A motion to be considered a feint or balk must have some element of deception; it must not be some characteristic motion that has no purpose and does not deceive the receiver.

6. Calling faulty hits: Slow motion films have shown that practically all sharply hit shuttles strike the racket twice. The cork hits the racket, then the shuttle quickly reverses ends, and the feathers brush the gut as the shuttle leaves the racket. The motion is so fast that it seems to be a single hit. It is important for the umpire to recognize that illegal hits are a matter of degree and judgment and to give the hitter the benefit of the doubt.

Note: The American Badminton Association recommends two procedures which differ from the system explained. They are omission of an "0" at the beginning of a side's service in doubles; and the carrying along of the dot so that it is placed over each point made following the one hand, rather than over just the first point.

LAWS OF BADMINTON*

(As adopted by the International Badminton Federation and the American Badminton Association)

1. Court. (a) The court shall be laid out as in Diagram A (except in the case provided for in paragraph "b" of this Law) and to the measurements there shown and shall be defined by white, black, or other easily distinguishable lines, 1½ inches wide.

In marking the court, the width (1½ inches) of the center lines shall be equally divided between the right and left service courts; the width (1½ inches each) of the short service line and the long service line shall fall within the 13-foot measurement given as the length of the service court; and the width (1½ inches each) of all other boundary lines shall fall within the measurements given.

(b) Where space does not permit the marking out of a court for doubles, a court may be marked out for singles only as shown in Diagram B. The back boundary lines become also the long service lines, and the posts, or the strips of material representing them as referred to in Law 2, shall be placed on the sidelines.

2. Posts. The posts shall be 5 feet 1 inch in height from the surface of the court. They shall be sufficiently firm to keep the net strained as provided in Law 3, and shall be placed on the side boundary lines of the court. Where this is not practicable, some method must be employed for indicating the position of the side boundary line where it passes under the net, e.g., by the use of a thin post or strip of material not less than 1½ inches in width, fixed to the side boundary line and rising vertically to the net cord. Where this is in use on a court marked for doubles, it shall be placed on the side boundary line of the doubles court irrespective of whether singles or doubles are being played.

3. Net. The net shall be made of fine tanned cord of 5/8 inch to ¾ inch mesh. It shall be firmly stretched from post to post, and shall be 2½ feet in depth. The top of the net shall be 5 feet in height from the floor at the center, and 5 feet 1 inch at the posts, and shall be edged with a 3-inch white tape doubled and supported by a cord or cable run through the tape and strained over and flush with the top of the posts.

4. Shuttle. A shuttle shall weigh from 73 to 85 grains, and shall have from 14 to 16 feathers fixed in a cork of 1 inch to 1-1/8 inches in diameter. The feathers shall be from 2½ to 2¾ inches in length from the tip to the top of the cork base. They shall have from 2-1/8

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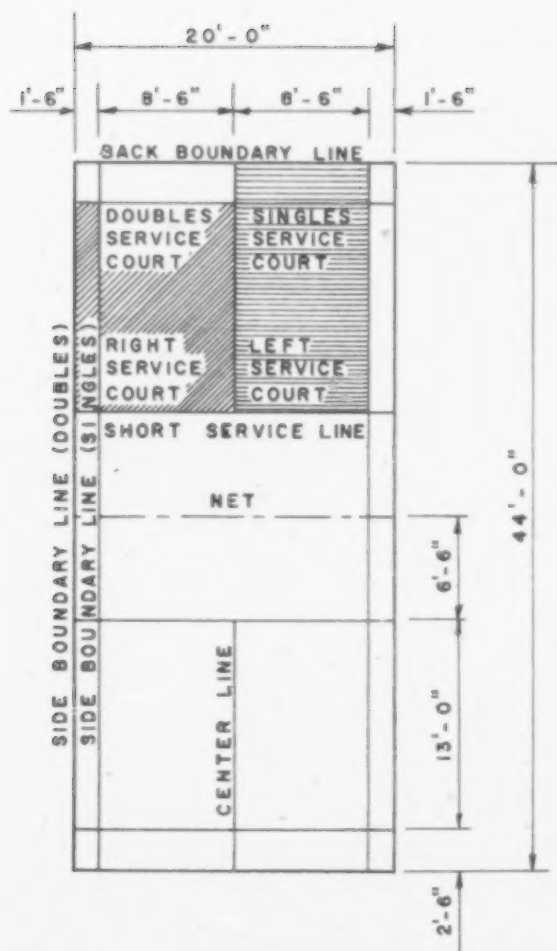


Diagram A

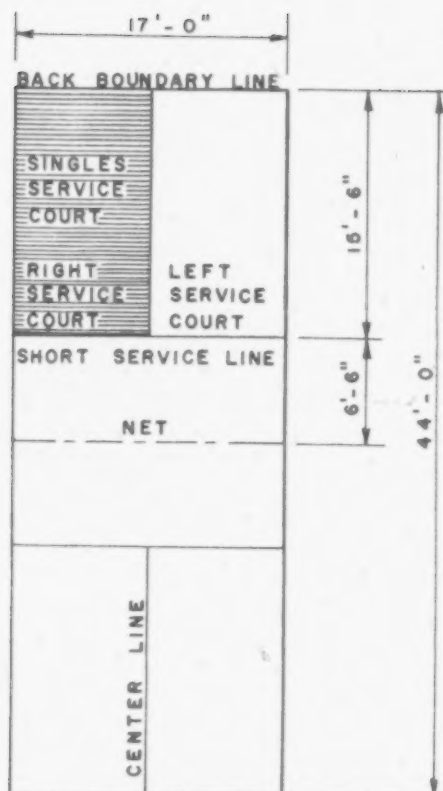


Diagram 8

to 2½ inches spread at the top and shall be firmly fastened with thread or other suitable material.

Subject to there being no substantial variation in the general design, pace, weight, and flight of the shuttle, modifications in the above specifications may be made, subject to the approval of the national organization concerned (a) in places where atmospheric conditions, due either to altitude or climate, make the standard shuttle unsuitable; or (b) if special circumstances exist which make it otherwise expedient in the interests of the game.

A shuttle shall be deemed to be of correct pace if, when a player of average strength strikes it with a full underhand stroke from a spot immediately above one back boundary line in a line parallel to the sidelines, and at an upward angle, it falls not less than 1 foot and not more than 2 feet 6 inches short of the other back boundary line.

5. Players. (a) The word "player" applies to all those taking part in a game.

(b) The game shall be played, in the case of the doubles game, by two players on a side, and in the case of the single game, by one player on a side.

(c) The side for the time being having the right to serve shall be called the "in" side, and the opposing side shall be called the "out" side.

6. The Toss. Before commencing play, the opposite sides shall toss, and the side winning the toss shall have the option of (a) serving first, (b) not serving first, or (c) choosing ends. The side losing the toss shall then have choice of any alternative remaining.

7. Scoring. (a) The doubles and men's singles game consists of 15 or 21 points, as may be arranged, provided that in a game of 15 points, when the score is 13-all, the side which has first reached 13 has the option of "setting" the game to 5, and that when the score is 14-all, the side which first reached 14 has the option of "setting" the game to 3. After a game has been "set," the score is called "love-all," and the side which first scores 5 or 3 points, depending on whether the game has been "set" at 13- or 14-all wins the game. In either case the claim to "set" the game must be made before the next service is delivered after the score has reached 13-all or 14-all, provided also that in a game of 21 points the same method of scoring be adopted, substituting 19 and 20 for 13 and 14.

(b) The ladies singles game consists of 11 points, provided that when the score is "9-all" the player who first reached 9 has the option of "setting" the game to 3, and when the score is "10-all" the player who first reached 10 has the option of "setting" the game to 2.

(c) A side rejecting the option of "setting" at the first opportunity shall not be thereby debarred from "setting" if a second opportunity arises.

(d) In handicap games, "setting" is not permitted.

8. The opposing sides shall contest the best of three games, unless otherwise agreed. The players shall change ends at the commencement of the second game and also of the third game, if any. In the third game, the players shall change ends when the leading score reaches—

- (a) 8 in a game of 15 points,
- (b) 6 in a game of 11 points,
- (c) 11 in a game of 21 points,

or in handicap events when one of the sides has scored half the total number of points required to win the game (the next highest number being taken in the case of fractions). When it has been agreed to play only one game, the players shall change ends as provided above for the third game.

If, inadvertently, the players omit to change ends as provided in this Law at the score indicated, the ends shall be changed immediately the mistake is discovered, and the existing score shall stand.

9. Doubles Play. (a) It having been decided which side is to have the first service, the player in the right-hand service court of that side commences the game by serving to the player in the service court diagonally opposite. If the latter player returns the shuttle before it touches the ground, it is to be returned by one of the "in" side, and then returned by one of the "out" side, and so on, till a fault is made or the shuttle ceases to be "in play" (see paragraph b). If a fault is made by the "in" side, their right to continue serving is lost, as only one player on the side beginning a game is entitled to do so (see Law 11), and the opponent in the right-hand service court then becomes the server; but if the service is not returned or the fault is made by the "out" side, the "in" side scores a point. The "in" side players then change from one service court to the other, the service now being from the left-hand service court to the player in the service court diagonally opposite. So long as a side remains "in," service is delivered alternately from each service court into the one diagonally opposite, the change being made by the "in" side when, and only when, a point is added to its score.

(b) *The first service* of a side in each inning shall be made from the right-hand service court. A service is delivered as soon as the shuttle is struck by the server's racket. The shuttle is thereafter in play until it touches the ground or until a fault or let occurs, or except as provided in Law 19. After the service is delivered, the server and the player served to may take up any position they choose on their side of the net, irrespective of any boundary lines.

10. The player served to may alone receive the service, but should the shuttle touch or be struck by his partner, the "in" side scores a point. No player may receive two consecutive services in the same game, except as provided in Law 12.

11. Only one player of the side beginning a game shall be entitled to serve in its first innings. In all subsequent innings, each partner shall have the right, and they shall serve consecutively. The side winning a game shall always serve first in the next game, but either of the winners may serve and either of the losers may receive the service.

12. If a player serves out of turn or from the wrong service court (owing to a mistake as to the service court from which service is, at the time being, in order), and his side wins the rally, it shall be a let, provided that such let be claimed and allowed or ordered by the umpire before the next succeeding service is delivered.

If a player of the "out" side standing in the wrong service court is prepared to receive the service when it is delivered, and his side wins the rally, it shall be a "let," provided that such "let" be claimed and allowed, or ordered by the umpire, before the next succeeding service is delivered.

If in either of the above cases, the side at fault loses the rally, the mistake shall stand and the players' position shall not be corrected.

Should a player inadvertently change sides when he should not do so and the mistake not be discovered until after the next succeeding service has been delivered, the mistake shall stand, and a let cannot be claimed or allowed, and the players' position shall not be corrected.

13. Singles Play. Doubles Laws 9 to 12 hold good except that—

(a) The players shall serve from and receive service in their respective right-hand service courts only when the server's score is 0 or an even number of points in the game, the service being delivered from and received in their respective left-hand service courts when the server's score is an odd number of points.

(b) Both players shall change service courts after each point has been scored.

14. Faults. A fault made by a player of the side which is "in" puts the server out; if made by a player whose side is "out," it counts a point to the "in" side.

It is a fault—

(a) If in serving, the shuttle at the instant of being struck be higher than the server's waist, or if any part of the head of the racket, at the instant of striking the shuttle, be higher than any part of the server's hand holding the racket.

(b) If in serving, the shuttle falls into the wrong service court (i.e., into the one not diagonally opposite to the server), or falls short of the short service line, or beyond the long service line, or

outside the side boundary lines of the service court into which service is in order.

(c) If the server's feet are not in the service court from which service is at the time being in order, or if the feet of the player receiving the service are not in the service court diagonally opposite until the service is delivered (see Law 16).

(d) If before or during the delivery of the service any player makes preliminary feints or otherwise intentionally balks his opponent.

(e) If either in service or play the shuttle falls outside the boundaries of the court, or passes through or under the net, or fails to pass the net, or touches the roof or side walls or the person or dress of a player. (A shuttle falling on a line shall be deemed to have fallen in the court or service courts of which such line is a boundary.)

(f) If the shuttle in play be struck before it crosses to the striker's side of the net. (The striker may, however, follow the shuttle over the net with his racket in the course of his stroke.)

(g) If when the shuttle is in play a player touches the net or its supports with racket, person, or dress.

(h) If the shuttle be held on the racket (i.e. caught or slung during the execution of a stroke); or if the shuttle be hit twice in succession by the same player with two strokes; or if the shuttle be hit by a player and his partner successively.

(i) If in play a player strikes the shuttle (unless he thereby makes a good return), or is struck by it, whether he is standing within or outside the boundaries of the court.

(j) If a player obstructs an opponent.

(k) If Law 16 be transgressed.

It is not a fault if the shuttle be hit by the frame, shaft, or handle of the racket, or if the base and the feathers of the shuttle be struck simultaneously.

General

15. The server may not serve till his opponent is ready, but the opponent shall be deemed to be ready if a return of the service is attempted.

16. The server and the player served to must stand within the limits of their respective service courts (as bounded by the short and long service lines, the center lines and the sidelines), and some part of both feet of these players must remain in contact with the surface of the court in a stationary position until the service is delivered. A foot on or touching a line in the case of either the server or the receiver shall be held to be outside his service court (see Law 14c).

The respective partners may take up any position, provided they do not unsight or otherwise obstruct an opponent.

17. If in the course of service or rally the shuttle touches and passes over the net, the stroke is not invalidated thereby. It is a good return if the shuttle, having passed outside either post, drops on or within the boundary lines of the opposite court. A let may be given by the umpire for an unforeseen or accidental hindrance.

If in service or during a rally, a shuttle, *after passing over the net*, is caught in or on the net, it is a let. When a let occurs, the play since the last service shall not count and the player who served shall serve again.

If the receiver is faulted for moving before the service is delivered, or for not being within the correct service court, in accordance with Laws 14 (c) or 16, and at the same time the server is also faulted for a service infringement, it shall be a "let."

18. If the server, in attempting to serve, misses the shuttle, it is not a fault; but if the shuttle be touched by the racket, a service is thereby delivered.

19. If when in play the shuttle strikes the net and remains suspended there, or strikes the net and falls towards the surface of the court on the striker's side of the net, or hits the surface outside the court and an opponent then touches the net or shuttle with his racket or person, there is no penalty, as the shuttle is not *then* in play.

20. If a player has a chance of striking the shuttle in a downward direction when quite near the net, his opponent must not put up his racket near the net on the chance of the shuttle rebounding from it. This is obstruction within the meaning of Law 14j. A player may, however, hold up his racket to protect his face from being hit if he does not thereby balk his opponent.

21. It shall be the duty of the umpire to call fault or let should either occur, with appeal being made by the players, and to give his decision on any appeal regarding a point in dispute if made before the next service. The umpire's decision shall be final, but he shall uphold the decision of a linesman or service judge. This does not preclude the umpire also from faulting the server or receiver. Where, however, a referee is appointed, an appeal shall lie to him from the decision of an umpire on question of law only. In the absence of a referee, it shall be the duty of the umpire to appoint linesmen and service judges at his discretion.

22. Continuous Play. Play shall be continuous from the first service until the match is concluded except that—

(a) In the International Badminton Championships, there shall be allowed an interval not exceeding five minutes between the second and third games of a match.

(b) In countries where climatic conditions render it desirable, there shall be allowed, subject to the previously published approval

of the national organization concerned, an interval not exceeding five minutes between the second and third games of a match, in singles or doubles or both.

(c) When necessitated by circumstances not within the control of the players, the umpire may suspend play for such a period as he may consider necessary. If play is suspended, the existing score shall stand and play be resumed from this point. Under no circumstances shall play be suspended to enable a player to recover his strength or wind, or to receive instruction or advice. No player shall be allowed to leave the court until the match is concluded without the umpire's consent. The umpire shall be the sole judge of any suspension of play, and he shall have the right to disqualify an offender.

INTERPRETATIONS

1. Any movement or conduct by the server that has the effect of breaking the continuity of service after the server and receiver have taken their positions to serve and to receive the service is a preliminary feint (see Law 14d).
2. It is obstruction if a player invades an opponent's court with racket or person in any degree except as permitted in Law 14f (see Law 14j).
3. Where necessary on account of the structure of a building, the local badminton authority may, subject to the right of veto by its national organization, make bylaws dealing with cases in which a shuttle touches an obstruction.
4. It is a fault under Law 14h if the shuttle be hit otherwise than by one impact with the racket. But it is not a fault (provided the stroke be otherwise legitimate) (a) if the base and feathers of the shuttle be struck simultaneously or (b) if the shuttle be struck with one distinct hit only by any part of the racket.

CLARIFICATION OF RULES - DGWS Badminton Committee

Law 12, Paragraph 1. Serving out of turn from the wrong service court may mean (a) the correct server delivers a serve from the wrong service court, or (b) this wrong server delivers a serve from either the correct or incorrect service court.

Law 12, Paragraph 2. "Takes the serve" means receives the serve.

Law 12, Paragraph 4. The procedure given for a player inadvertently changing sides when he should not do so, under the conditions noted, also applies should a player fail to change sides when he should do so, under the same conditions.

**DGWS SQUASH COMMITTEE
1972-1974**

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EDITORIAL COMMENT

The sport of squash has been added to the list of 20 sports for which Guides are published by the Division for Girls and Women's Sports. The singles rules and two articles appear in this new *Tennis-Badminton-Squash Guide*. Marigold A. Edwards is the chairman of the 1972-74 Squash Committee; she and her committee will be working to increase the scope and coverage in the next Guide. If you have any questions, comments, or suggestions, please write to Marigold A. Edwards, 104 Trees Hall, University of Pittsburgh, Pittsburgh, Pennsylvania 15213.

Betty Brown
SGOR Chairman, 1971-72

Basic Ideas for Beginning Squash

BETTY SHELLENBERGER

Betty Shellenberger is an instructor in the Physical Education Department at Chestnut Hill College, Philadelphia. She has been a ranking player in singles and doubles in squash and has held the USWSRA Senior Singles title. As past president of the USWSRA, she is currently chairman of the USWSRA Referee's Committee.

Squash racquets is a game in which you attempt to outwit and outmaneuver your opponent in a confined space. As a novice in the sport the following discussion offers a few points which may help you become a successful player.

Once a beginning player has mastered the basic forehand and backhand strokes, she should work on three shots and her serve. Two of these shots will keep her opponent in the back court while the third is a short shot into the forecourt.

Wall Shot

A wall shot stays close to the side wall but does not hit it or angle out into the center of the court making an easy return for the opponent. It is played straight to the front wall when one has been forced by an opponent to play a shot near the side wall. It is hit straight, hard, and deep so that it does not touch the floor until after it has crossed the service line. It can be practiced alone or during a game by trying to play every point using this shot.

Crosscourt Shot

A second deep shot is the crosscourt drive. It is hit on an angle to the front wall from one side of the court to the other and should not bounce until after it has crossed the service line. If possible, it should hit the back wall before hitting the side wall as this will make it more difficult for the opponent to return.

Corner Shot

When an opponent is in the back court, this is the time to play a short corner shot. The ball should be played into the side wall on the same side as the opponent when she made her last shot. It should hit the side wall no further than three feet from the front wall. It will then hit the front wall and go off at an angle away from the

opponent. This corner shot should be hit as close to the "tin" as possible.

To succeed in squash, all these shots must be done with both the forehand and backhand strokes and the ball hit firmly. The novice player should not rush her shots as there is more time to stroke the ball properly than one first realizes. A short back swing and follow-through with good wrist action will also produce better shots.

The serve is a very vital part of the game. A good serve can win many points by either being unreturnable or by forcing your opponent to make a defensive stroke. The most successful serve is the underhand, soft, high, deep serve. Ideally it should drop just in front of the back wall; but the beginner should strive to have it not touch the side wall until after it has passed the service line. Many beginners find that the serve is a very difficult stroke to execute. If the player will first concentrate on looking at the ball and swinging through with the racquet, she should succeed in getting the ball into play. For variety and a change of pace, an overhand serve which is hit hard just above the service line on the front wall can be very effective. The beginner should try to have this serve hit the back wall close to the floor so her opponent will have to make a defensive return shot.

Tips for Match Play

Once you start playing matches it is customary to rally with your opponent before commencing formal play. A player hits shots on one side of the court and then switches with her opponent so they may both have an equal opportunity of hitting the basic strokes. The ball is usually hit alternately but a player could hit a number of consecutive wall shots to get the feel of that stroke. During this warm-up, notice how your opponent strikes the ball, whether or not she is quick in her movements and has control of her shots. At this time each player should also practice her serve. There is a great difference in the height of courts. This can greatly affect the success of a player's serve. Also, some courts are heated while others are affected only by the outside temperature. This can make a player's serve and, indeed, her other shots vary each time she plays.

Control of the court is important in a match. A player should try to maintain a position just at the top of the junction of the service boxes, known as the "T." This places her where she can get to most shots quickly and be in a good position to make a shot. When the ball is being played by an opponent behind her, the player should try to watch what is going to happen to the ball. This will assist her anticipation so she will be better prepared to make her next shot.

Squash is a fun game, one in which you can get a lot of exercise in a very short time. You do not need an opponent to improve most

An Introduction to Squash

MARIGOLD A. EDWARDS

Marigold A. Edwards, associate professor at the University of Pittsburgh, received her undergraduate degrees from the Universities of Otago and Canterbury in New Zealand and her M.Ed. and Ph.D. degrees from the University of Pittsburgh. Active in the racket sports, she is a national clinician in tennis and badminton for the Lifetime Sports Education Project and currently holder of the Canadian Ladies Open Squash Singles title. She is ranked second in Squash Singles in USA and is the first woman to be admitted to the Pennsylvania Sports Hall of Fame, Western Pennsylvania Chapter. She is the chairman of the 1972-74 Squash Guide Committee.

Looking for activity? The energy expenditure for squash quoted as 650+ calories per hour or 9+ times basal verifies that it is a fast and vigorous game. As a whole body activity it provides sufficient stimulus for training the cardiorespiratory system. Because it is one of the fastest court games in the world, the neophyte has difficulty in visually tracking the ball which reaches speeds up to 170 mph among top players. In many parts of the country the few existing squash courts are located in men-only facilities of private clubs and so it is often not recognized as an excellent sport for women. The thoughts and suggestions which follow might help the beginning player or teacher seeking insight into the game or arouse some interest in those as yet unexposed. The tools of squash are standard and can be noted in any technique book.

As a racket sport, squash has much in common with tennis and badminton in both performance and teaching. Experience in tennis particularly facilitates the learning of squash; unfortunately the effect is not reciprocal! The difficulty with tennis is learning to keep the ball inbounds whereas in squash one can scarcely hit it out! How many can rally after a six-week tennis course? Almost none. Squash, in contrast, has the possibility for instant success. The serve in squash is no stumbling block either and at a beginning level its function is simply to get the ball into play with an overhead, sidearm, or underhand stroke. The badminton player will enjoy the light and shade of squash rallies that mix hard drives, soft drops, and lobs for a cat and mouse effect—and this is the fun part of the game!

Students respond to the cognitive approach to learning a skill. An understanding of the mechanical principles involved provides logic

for the form of the movement which, because it is efficient, promotes control and therefore skill. A logical approach to the racket sports deals with angles and forces and the aerodynamics of the ball. The net result is much more rewarding than a trial and error approach, and the understanding facilitates a happy compromise of the long-standing conflict between form and effectiveness.

Apparent style variance among better players is merely personal flourish superimposed on form which is within the range of mechanical correctness. A source of real frustration for the beginner is the judging of balls off the side or back walls, yet a brief explanation of the angle of incidence and angle of reflection and the modifying factors changes the nature of the problem to a cognitive challenge.

As with tennis and badminton, the crux of the matter is learning where the racket face is—and hitting a million balls is the standard and necessary process! There are many stroking and simulated game drills to help reach this goal. Self-practice is invaluable; mirror practice is very helpful too especially if the cognitive approach has been used. Unlike tennis and badminton, squash does not enjoy the safety of a net separating the opponents, but fear not, for wielding the racquet is a matter of social responsibility as is driving a car or skiing a crowded slope. Appreciation of the racket motion in a vertical plane clarifies the space situation and eliminates the dangerous horizontal swipe, i.e., the backswing is “up” and not “around the corner.”

For beginners without a tennis background, I would recommend starting with the Australian ball. Softer and more bouncy, its slower speed allows ample time to hit while encouraging longer rallies from the outset (remember, herein lies the fun!), and the students are not afraid of it. On the other hand, the North American ball leaves its mark physically and psychologically! At a later time the changeover can be made rather easily as borne out by the British and Australian players who adapt so quickly and successfully to our hard, fast ball.

Skill in stroking frees the player to concentrate on the game. Strategy in its simplest form is basically, as for any racquet sport, putting the ball where the opponent isn't. Since the court is longer than wide, the up and back diagonal provides the greatest distance to move. As in badminton, deception is dependent on apparently identical stroke preparation. This is based on an understanding of the sources of power, namely weight transfer, shoulder rotation, and the cumulative speed of the three short levers that make up the racket arm. Appropriate footwork is implied since how one moves on the court can make or break power and deception.

One can play good squash with two basic strokes: rails (shots along the wall) and crosscourts. Forget the fancy stuff, for the variety of strokes comes much later if then, and constitutes a low

percentage at best. Learn the theme before permitting variations on the theme. When in trouble, elongate the time lapse between shots. For example, lobbing deep and soft into the backcourt gives you maximum time between hitting and having to hit again. On the other hand, if you are in control, decrease the time between shots by hitting hard and fast.

Obvious but underrated is the need to practice watching the ball at all times, and whatever has to be done to see the ball, do it! It travels too fast to pick up in flight and then make a useful response. Watch your opponent in your peripheral vision and always be aware of where she is, but never take your eyes off the ball during play. One must have faith that the telltale, front wall, and corners will not move or leave the area while you are playing your shot.

For those of you who are dedicated teachers remember that practice allows the seed you planted to grow and develop, but practice does *not* make perfect—it must be thoughtful practice. One-half hour of thoughtful practice is worth several half-hours of aimless playing. As many master teachers have pointed out, the essence of teaching is not the “what” (which for the games skills is fairly well standardized) but the “how.” So often we tell students “what” to do, and neglect to tell them “how” to do it. “Hit the ball lower on the front wall!” But how is that done? It is the “how” that is the essence of academic freedom, and it is up to you, your personality, enthusiasm, and creativity to capitalize on it.

Instant success is possible in squash. Simplify your approach; eliminate all unnecessary details without compromising correct technique, until the students are hooked on it. The key is fun, for what other reason would we teach it than with the hope that given the opportunity, some may elect to play the game in their leisure time, and this decision is based on fun and skill.

As players or teachers we are working to increase ball and therefore racket control and this requires good form, and good form is simple, clean, and mechanically efficient—hence the need to understand the mechanical principles. This is the logical approach and allows the activity to become a cognitive as well as a physical challenge.

United States Squash Racquets Association Singles Rules

1. Server. At the start of a match the choice to serve or receive shall be decided by the spin of a racquet. The server retains the serve until he loses a point, in which event he loses the serve.

2. Service. A ball is in play from the moment at which it is delivered in service until

- (a) the point is decided;
- (b) a fault, as hereinafter defined is made; or
- (c) a let or let point, as hereinafter defined, occurs.

At the beginning of each game, and each time there is a new server, the ball shall be served from whichever service box the server elects and thereafter alternately until the service is lost or until the end of the game. If the server serves from the wrong box, there shall be no penalty and the service shall count as if served from the correct box, provided, however, that if the receiver does not attempt to return the service, he may demand that it be served from the other box, or if before the receiver attempts to return the service, the referee calls a let, (as hereinafter defined), the service shall be made from the other box.

The server, until the ball has left the racquet from the service, must stand with at least one foot on the floor within, and not touching the line surrounding the service box and serve the ball onto the front wall above the service line and below the 16-inch line before it touches any other part of the court, so that on its rebound (return), it first strikes the floor within, but not touching, the lines of the opposite service court, either before or after touching any other wall or walls within the court. A ball so served is a good service, otherwise it is a fault.

If the first service is a fault, the server shall serve again from the same side. If the server makes two consecutive faults, he loses the point. A service called a fault may not be played, but the receiver may volley any service which has struck the front wall in accordance with this rule.

3. Return of Service and Subsequent Play.

(a) To make a good return of a service or of a subsequent return, the ball must be struck on the volley or before it has touched the floor twice, and reach the front wall on the fly above the telltale, and it may touch any wall or walls within the court before or after reaching the front wall. A return is deemed to be made at the instant the ball touches the racquet of the player making the return.

(b) If the receiver fails to make a good return of a good service, the server wins the point. If the receiver makes a good return of service, the players shall alternate making returns until one player

fails to make a good return. The player failing to make a good return loses the point.

(c) Until the ball has been touched or has hit the floor twice, it may be struck at any number of times.

(d) If at any time the ball hits outside the playing surfaces of the court, which includes the ceiling and/or lights or hits a line marking the playing surfaces of the court (except on the first service, when it is one fault), it is a point against the player so hitting the ball.

4. Score. Each point won by a player shall add one to his score.

5. Game. The player who first scores 15 points wins the game excepting that:

(a) At "13 all" the player who has first reached the score of 13 must elect one of the following before the next serve:

(1) Set to 5 points—making the game 18 points.

(2) Set to 3 points—making the game 16 points.

(3) No set, in which event the game remains 15 points.

(b) At "14 all," provided the score has not been "13 all," the player who has first reached the score of 14 must elect one of the following before the next serve:

(1) Set to 3—making the game 17 points.

(2) No set, in which event the game remains 15 points.

6. Match. A match shall be the best three out of five games.

7. Keep Out of Opponent's Way. Each player must get out of his opponent's way immediately after he has struck the ball and

(a) Must give his opponent a fair view of the ball, provided, however, interference purely with his opponent's vision in following the flight of the ball is not a let;

(b) Must give his opponent a fair opportunity to get to and/or strike at the ball in any position on the court elected by his opponent;

(c) Must allow his opponent to play the ball from any parts of the court elected by his opponent;

(d) Must allow his opponent to play the ball to any part of the front wall or to either side near the front wall.

8. Ball in Play Touching Player. If a ball in play, after hitting the front wall, but before being returned again, shall touch either player, or anything he wears or carries (other than the racquet of the player who makes the return), the player so touched loses the point, except as provided in Rule 9(b).

If a ball in play touches the player who last returned it or anything he wears or carries before it hits the front wall, the player so touched loses the point.

If a ball in play, after being struck by a player on a return, hits the player's opponent or anything his opponent wears or carries before reaching the front wall:

(a) The player who made the return shall lose the point if the return would not have been good.

(b) The player who made the return shall win the point if the ball would have gone directly from the racquet of the player making the return to the front wall without first touching any other wall.

(c) The point shall be replayed as a let (Rule 9) if the return, except for such interference, would have hit the front wall fairly and (1) would have touched some other wall before so hitting the front wall, or (2) has hit some other wall before hitting the player's opponent or anything he wears or carries.

When there is no referee, if the player who made the return does not concede that the return would not have been good, or alternatively, if the player's opponent does not concede that the ball has hit him (or anything he wears or carries) and would have gone directly to the front wall without first touching any other wall, the point shall be replayed as a let (Rule 9).

In all cases covered by the rule, play shall cease even though the ball goes up.

9. Let. A let is the stopping of play and the playing over of a point.

In addition to the lets described in Rules 2 and 8 (c), the following are lets if the player whose turn it is to strike the ball could otherwise have made a good return:

(a) When such player's opponent violates Rule 7;

(b) When owing to the position of such player, his opponent is unable to avoid being touched by the ball;

(c) When such player refrains from striking at the ball because of a reasonable fear of injuring his opponent;

(d) When such player before actually hitting or in the act of striking or striking at the ball is touched by his opponent, his racquet or anything he wears or carries;

(e) When on the first bounce from the floor the ball hits on or above the 6½ foot line on the back wall;

(f) When a ball in play breaks. If a player thinks the ball has broken while play is in progress he must nevertheless complete the point and then immediately request a let, giving the ball to the referee for inspection. The referee shall allow a let only upon such immediate request if the ball proves in fact to be broken.

A player may request a let or a let point. A request by a player for a let shall automatically include a request for a let point. Upon such request, the referee shall allow a let, let point, or no let.

No let shall be allowed on any stroke a player makes unless he requests such let before actually hitting or in the act of striking or striking at the ball.

The referee may not call or allow a let as defined in this Rule 9 unless such let is requested by a player; provided, however, the

referee may call a let at any time (1) when there is interference with play caused by any factor beyond the control of the players, or (2) when he fears that a player is about to suffer severe physical injury.

On the replay of the point the server (1) is entitled to two serves even though a fault was called on the original point, (2) must serve from the correct box even though he served from the wrong box on the original point, and (3) provided he is a new server, may serve from a service box other than the one he selected on the original point.

10. Let Point. A let point is the unnecessary violation of Rule 7 (b), 7 (c) or 7 (d). An unnecessary violation occurs (1) when the player fails to make the necessary effort within the scope of his normal ability to avoid the violation, thereby depriving his opponent of a clear opportunity to attempt a winning shot, or (2) when the player has repeatedly failed to make the necessary effort within the scope of his normal ability to avoid similar violations. The player unnecessarily violating Rule 7 (b), 7 (c) or 7 (d) loses the point.

When there is no referee, if a player does not concede that he has unnecessarily violated Rule 7 (b), 7 (c), or 7 (d), the point shall be replayed as a let.

11. Continuity of Play. Play shall be continuous from the first service of each game until the game is concluded. Between each game, play may be suspended by either player for a period not to exceed two minutes, and between the third and fourth games play may be suspended by either player for a period not to exceed five minutes. Except during the five-minute period at the end of the third game, no player may leave the court without permission of the referee. The referee may suspend play for such period as he may consider necessary. If play is suspended by the referee because of an injury to one of the players, such player must resume play within one hour or default the match. The foregoing provisions shall be strictly construed. Play shall never be suspended to allow a player to recover his strength or his wind. The referee shall be the sole judge of intentional delay, and, after giving due warning, he must disqualify the offender.

In the event the referee suspends play other than for injury to a player and for some cause beyond the control of both players, such as the failure of the electric lighting system, play shall be resumed when the cause of such suspension of play has been eliminated, provided, however, if such cause of delay cannot be rectified within one hour, the match shall be postponed to such time as the tournament committee determines and the match shall be resumed from the point and game score existing at the time the match was stopped unless the referee and both players unanimously agree to play the entire match or any part of it over.

12. Attire and Equipment. (a) Player's attire must be white. Any controversy over attire shall be decided by the referee, whose decision shall be final.

(b) The standard singles ball of the United States Squash Racquets Association shall be of black rubber 1.700 to 1.750 inches in diameter and shall weigh 1.12 to 1.17 ounces. It shall be pneumatic. At a ball temperature of 70° to 74° F., it shall have a rebound on a steel plate between 24 to 26 inches from a drop of 100 inches. After 10 minutes or more of play or at a ball temperature of 83° to 84° F., it shall have a rebound on a steel plate of 27 to 30 inches from a drop of 100 inches. For a supplementary test in a court, after 10 minutes or more of play the ball shall have a rebound from the 6½ feet rear red line of not more than 25 inches and not less than 23 inches.

The difference in rebound between a ball before play and after play of 10 minutes or more, whatever the temperature of the court or the ball, shall not exceed 20 percent of the before play rebound.

For purposes of this rule a minimum of 300 blows by the authorized testing device of the Association shall be deemed to be the equivalent of the 10 minutes or more of play referred to above, since this procedure yields a ball temperature of 83° to 84° F.

Manufacturers may use the testing device of the Association which is available through the chairman of the Committee on Courts, Bats and Balls or procure their own.

(c) The racquet or bat shall be made of wood and have a circular shaped head with a diameter not exceeding 9 inches, and shall not exceed 27 inches overall length, with a weight of approximately 10 ounces. It shall be strung with gut or a substitute material, provided it is not metal. Materials or racquet designs which do not conform with this section, or the generally recognized manufacturer's standards, should be submitted to the Executive Committee for approval prior to manufacture or usage.

13. Condition of Ball. (a) No ball, before or during a match may be artificially treated—that is, heated or chilled.

(b) At any time, when not in actual play, another ball may be substituted by the mutual consent of the contestants or by decision of the referee.

14. Condition of Court. No equipment of any sort shall be permitted to remain in the court during a match other than the ball used in play, the racquets used by the players, and the clothes worn by them. All other equipment, such as extra balls, extra racquets, sweaters when not being worn, towels, bathrobes, etc., must be left outside the court. A player who requires a towel or cloth to wipe his eyeglasses should keep same in his pocket or securely fastened to his belt or waist.

15. Referee. (a) A referee shall control the game. This control shall be exercised from the time the players enter the court. The referee may limit the time of the warm-up period to five minutes, or shall terminate a longer warm-up period so that the match commences at the scheduled time. The referee's decision on all questions of play shall be final except as provided in Rule 15(b).

(b) Two judges may be appointed to act on any appeal by a player to a decision of the referee. When such judges are acting in a match, a player may appeal any decision of the referee to the judges, except as provided in paragraph (d) hereof. If one judge agrees with the referee, the referee's decision stands; if both judges disagree with the referee, the judges' decision is final. The judges shall make no rulings unless an appeal has been made. The decision of the judges shall be announced promptly by the referee.

(c) A player shall not state his reasons for his request under Rule 9 for a let or let point or for his appeal from any decision of the referee or judges, provided, however, that the referee may request the player to state his reasons.

(d) After giving due warning, the referee in his discretion may disqualify a player for speech or conduct unbecoming to the game of squash racquets. This decision of the referee may not be appealed.

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